

STM



The

CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

JUNE 27 1953

Family success in the sun!



MORE SUN...MORE NIVEA...MORE PROFIT!

Nothing succeeds like NIVEA. The family of sun preparations is proving a great success. NIVEA CREME . . . NIVEA SUNNING OIL . . . NIVEA SKIN OIL—three favourites selling better than ever! And the three *new* members of the family have achieved tremendous popularity already . . .

NEW

NIVEA SUNFILTA • NIVEA SUNSPRAY • NIVEA SUNCAPS

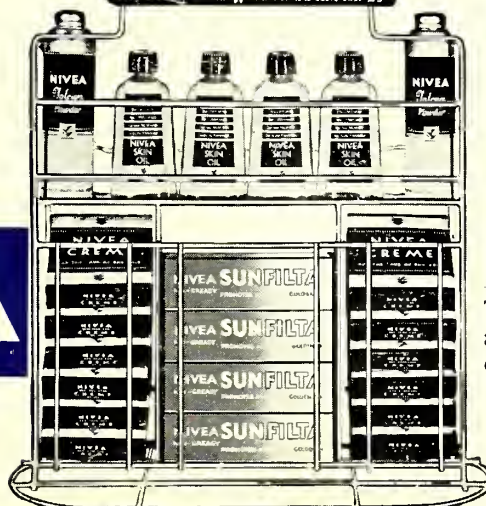
2/3

buys **NIVEA** value for money

Buy on Bonus Terms

4 Popular Size (retail 2/3 each) NIVEA CREME free for each £1 ordered. (Minimum parcel, £5.) Your profit, 79%.

NIVEA



New!

NIVEA SUNFILTA

In tubes :
Trade Price, 12/- per doz.
Retail Price, 2/3 each
(Inc. P. Tax)



New!

NIVEA SUNSPRAY

In the easy-to-work
aerospray :
Trade Price, 5/9½ each
Retail Price, 13/- (Inc. P. Tax)



New!

NIVEA SUNCAPS

In cartons of 6 capsules :
Trade Price, 16/9 per doz. cartons
Retail Price, 3/2 each carton
(Inc. P. Tax)



MAGNIFICENT DISPLAY STAND

This display stand is sent free with all orders for £20 and over. Ask our representative about it.



*Display Rowland's!
Get your big launch bonus!*

27¹/₃ PROFIT

ON EACH 3 DOZEN!

Make the most of the big launch bonus!

Display Rowland's on your counter for at least 14 days and for every 3 dozen ordered you will receive a credit note for 13s., giving you a profit on every 3 dozen of 27s. 3d. *This offer closes on 15th August, 1953.*

*Large Profits
Quick returns*

These new chlorophyll tablets are going to be best-sellers *fast*. They're nice-tasting and extra-effective. They've a handy display outer specially designed to prompt impulse sales.

And Rowland's are being launched with a really *big* Advertising Campaign—the biggest any chlorophyll tablet ever had!

Big advertisements will appear regularly in the *big*-circulation papers listed on the right:—



It's a smart pack that neatly gives one tablet at a time, holds 24, and retails at 1/9d.—and a handy outer specially designed for *your* counter.

Daily Express	4,094,000
Daily Mail	2,176,000
Daily Herald	1,923,000
Daily Mirror	4,452,000
Daily Sketch	800,000
Glasgow Sunday Mail	608,000
Belfast Telegraph	173,000

TOTAL CIRCULATION

14,226,000

ROWLAND'S CHLOROPHYLL TABLETS

All trade enquiries to County Perfumery Co. Ltd., Honeypot Lane, Stanmore, Middlesex.
Telephone: WORDsworth 4321. Sole Selling Agents for A. Rowland & Sons Ltd.

GIVE GLYMIEL Jelly

a place in the sun

Always recommend Glymiel Jelly for softening and beautifying the hands both in Summer and in Winter.

Keep an eye on your stocks, and make sure your customers keep their eyes on the name Glymiel in your shop, by displaying it in a prominent position.

Glymiel jelly

OSBORNE, BAUER & CHEESEMAN LTD.

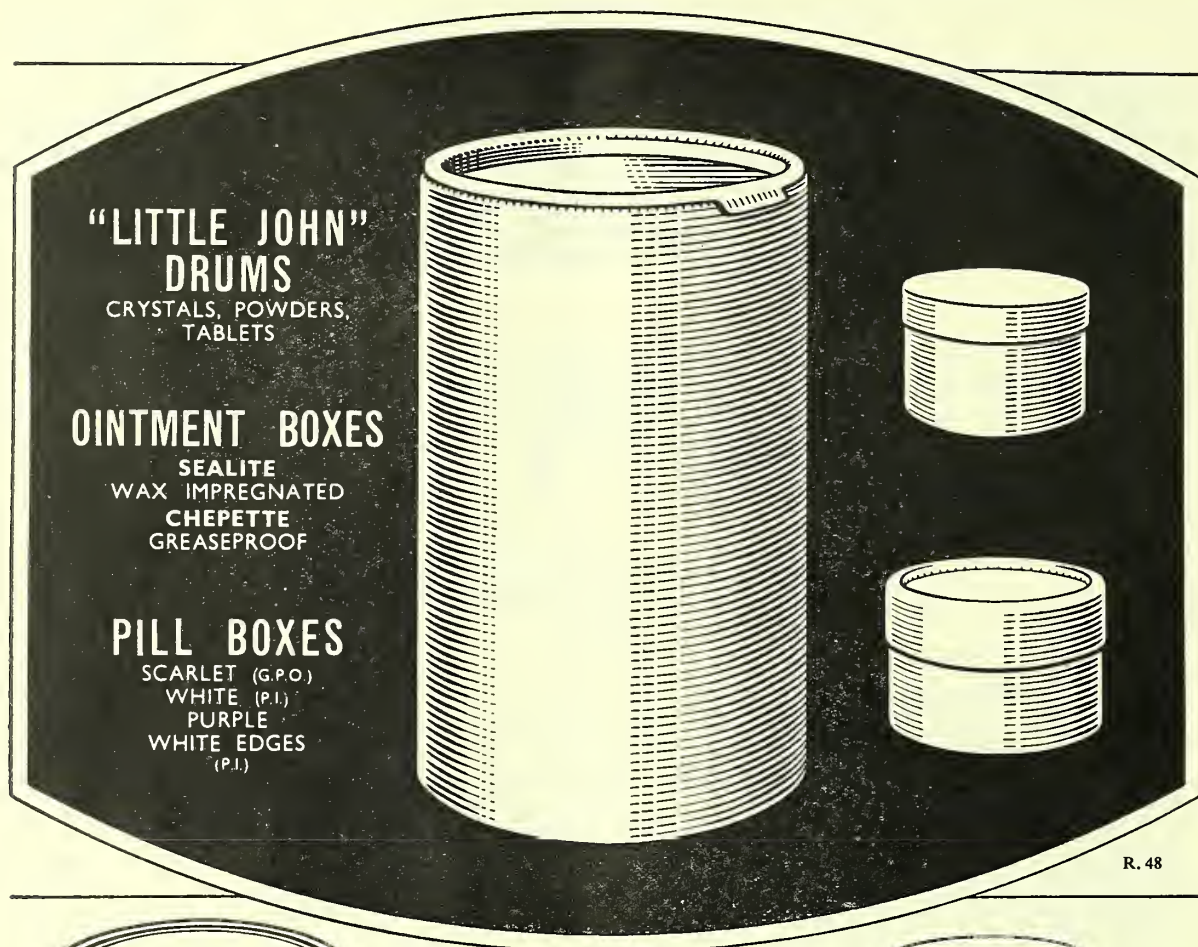
Agents: SANGERS LTD., 258, EUSTON ROAD, LONDON, N.W.1
NEWCASTLE & BRISTOL

REMEMBER ! there's a discount of $33\frac{1}{3}\%$ for you on Glymiel Jelly, both small and large tubes.

Prices : Small tubes—Retail 1/6, trade 8/- per doz. (*plus P.T.*)

Large tubes—Retail 2/2, trade 11/6 per doz. (*plus P.T.*)

—showing a full $33\frac{1}{3}\%$ on selling prices.



PURPLE
FLANGED



SCARLET
(G.P.O.)

For over a century
Standard Round Boxes for the Chemist
 have been manufactured by

ROBINSONS OF CHESTERFIELD

FIRST ESTABLISHED 1839

STILL LEADING 1953

*Quality has been improved
 by modern methods of
 manufacture
 Specifications and standards
 to comply with N.H.S. and B.S.I.
 Specifications*



REGD. TRADE MARK

*Your order should be placed
 through the usual source
 Immediate delivery of all
 standard Boxes for the Chemist*

ROBINSON & SONS, LTD., Wheat Bridge Mills, Chesterfield

Telegrams : 'BOXES' CHESTERFIELD. Telephone : 2105 (6 lines)

London Office : King's Bourne House, 229-231 High Holborn, W.C.1

Telegrams : OMNIBOX HOLB. LONDON Telephone : HOLborn 6383

*All eyes on the
beach
girl!*



This gaily coloured showcard will be catching the eyes of your customers all summer through.

The sun-screening agent in a base of vanishing cream, that's Beach. It allows a healthy, pleasing tan to be acquired with no discomfort—or, if protection has been neglected, Beach soothes the rawness and prevents further burning. And remember, Beach is sold only through pharmacists.

RETAIL PRICE
2/3 per tube

TRADE PRICE
12/- per doz. tubes

SPECIAL TERMS
5% discount on 3 doz.
7½% discount on 6 doz.

beach
SUN TAN CREAM

THE BRITISH DRUG HOUSES LTD. LONDON N.1

CHLOROPHYLL

is to-day
the biggest best-seller!

We are the first to offer it in the
most pleasant way
at a very popular price and with a
large margin of profit
for you as

“PHYLL”

the **CHLOROPHYLL**
CHEWING GUM
(NOW FULLY SWEETENED)

If you are a wholesaler—please fill in and send us
the attached coupon

If you are a retailer—please fill in and send us
the coupon as well; we shall pass it to wholesalers
distributing these lines.

To **DEGREE MFG. CO. LTD.**
Southall Lane, Southall, Middx.

Send me—without any obligation on
my side—FREE samples, prices and other
details of “PHYLL,” the Chlorophyll
chewing gum.

I am a **WHOLESALE**R / I am a **RETAILER**

Please delete words not applicable

NAME

ADDRESS

New
WALT DISNEY
Design

DDT FLY CARDS

SQUARE & CUT OUTS

Sample & prices on application to :-

THE COUNTY PAPER MILLS

**72 TOTTENHAM COURT ROAD,
LONDON, W.1**

MUSEum 0655

*Of course you
stock Prestoband?*



They'll all be asking! There's
a minor injury in the family
... or e'se their supply has just
run out. More and more folk
are saying they *must* have
Prestoband handy. They like this
quickest, cleanest, healthiest dress-
ing for wounds; this safest, most
comfortable strapping. It's easy
on, painless off, and no mess
left behind!

Keep apace with demand (and
our national advertising)
and stock antiseptic, water
resistant, pinless, knotless,
neat and tidy Prestoband.

Generous trade terms. Packed
in attractive display outers.
3 widths; 2", 1" or 3/4" at
1/6, 9d. or 7d. a 4-yard roll.

Made by Vernons of Preston.
Sole Distributors in the U.K.
are Fassett & Johnson Ltd.,
86 Clerkenwell Rd., London,
E.C.1, and 6 Crow St., Dublin

PRESTOBAND

THE ANTISEPTIC SELF-ADHESIVE BANDAGE

**sticks to itself, but NOT to the skin!*

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From the Carnegie Range of Fine Chemicals

STRYCHNINE AND SALTS

CARNEGIE CHEMICALS (WELWYN) LTD

WELWYN GARDEN CITY : HERTFORDSHIRE : ENGLAND

Telegrams : CARNECHEM, WELWYN GARDEN

Telephone : WELWYN GARDEN 506 (4 lines).

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In the form of Disprin aspirin can be better tolerated in large doses over prolonged periods

'Disprin' is a soluble, stable and palatable tablet providing pure calcium aspirin. That is, Disprin overcomes the physical and chemical disadvantages of both aspirin and calcium aspirin, and combines the advantages of both.

Unlike ordinary aspirin, Disprin is substantially neutral and soluble: and unlike calcium aspirin it does not decompose during manufacture and storage. Thus Disprin

combines the analgesic, sedative and anti-rheumatic effects of aspirin with the solubility and blandness of pure calcium aspirin.

Extensive clinical trials with Disprin show important results such as might be expected of so excellent a combination of properties. Except in cases of extreme hypersensitivity, Disprin can be tolerated in large doses over prolonged periods without the development of gastric and systemic disturbances.

DISPRIN

REGD.

Provides stable, soluble, palatable calcium aspirin

In all conditions which call for up-to-date aspirin therapy, Disprin may be advised and recommended.

50 tablet bottle 3/2; 26 tablet bottle 1/11; flat pocket folders 8 tablets 8½d; (all including Purchase Tax).

RECKITT & COLMAN LTD., HULL AND LONDON. (PHARMACEUTICAL DEPT., HULL)

THE GARDINOL CHEMICAL CO. LTD.

proprietors of

RONSHEIM & MOORE

hereby give notice that they are
NOW the proprietors of the
Registered Trade Marks
"LANETTE" and "LOROL"
and that they will take all necessary
steps to uphold their rights.

Grosvenor Gardens House, London, S.W.1

MYCOTA

"... therapeutic results confirmed the finding of the prophylactic series in placing undecylenic acid—undecylenate powder **first** among the agents studied." Sulzberger, M.B., and Kanof, A., (1947) *Arch. Derm. Syph.*, 55,391.

In the control of dermatophytoses Mycota Undecylenic Acid preparations are the most effective, practical and acceptable antimycotics. They are *safe, non-irritant and clean in use*. Mycota Powder is particularly indicated in the prophylaxis and treatment of tinea pedis.

MYCOTA POWDER

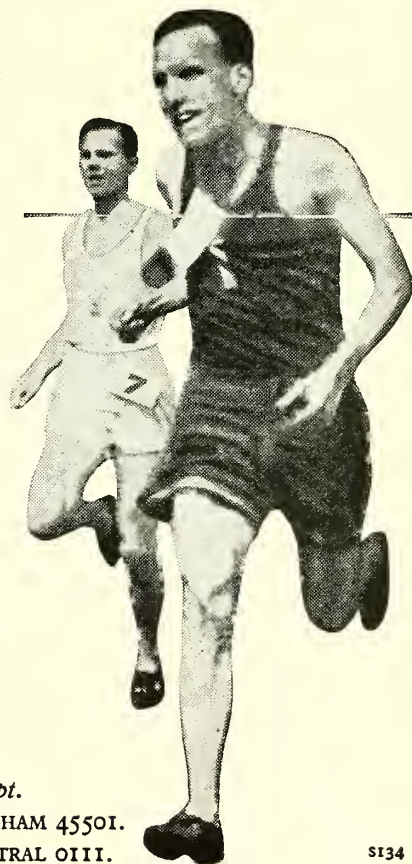
Containing 2% undecylenic acid and 20% zinc undecylenate. Sprinkler tins of 2½ oz. approx.

Retail 2/6d. Trade 1/8d.
(exempt Purchase Tax)

MYCOTA CREAM

Containing 5% undecylenic acid and 20% zinc undecylenate. Tube of 1 oz. approx.

Retail 2/6d. Trade 1/8d.
(exempt Purchase Tax)



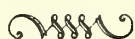
Literature and further information from the Wholesale & Export Dept.

BOOTS PURE DRUG CO. LTD., NOTTINGHAM, ENGLAND. TEL. NOTTINGHAM 45501.
LONDON SALES OFFICE: 71 FLEET STREET, LONDON, E.C.4. TEL. CENTRAL 0111.



For the first time, the British Pharmacopoeia, in its current issue, gives official recognition to sugar coated tablets. This off-shoot of the confectioner's art must now conform to certain standards laid down as to disintegration time. It is therefore more necessary than before to exercise care in deciding upon your tablet House.

May we say that at Brighton, Arthur H. Cox & Co. started over a hundred years ago with the problem of disguising the taste of a pill. Since that time a fund of experience and a truly impressive plant have been built to deal with the ever-increasing demand for "COX finish."



Success

hangs
on a thread...



*Hairnets invitingly
displayed will sell!*

Raywarp
HAIRNETS

Raywarp realise that the success of their hairnets depends upon their being just that little better—the division between the excellent and the ordinary is but a hairline. But Raywarp also know that hairnets do not sell merely because they are good—they must be attractively packed, displayed, to compel attention.

These popular nets, Nylon (N1) and Real Silk (R14), are dressed to sell in transparent packs on a handy hanging card.

Raywarp's success goes to your customers' heads—brings extra profit to you, and keeps Raywarp Ahead!

RAYWARP TEXTILES LIMITED • ALFRED STREET NORTH, NOTTINGHAM

the wetter
the better...

Here is something your customers may like to know about Corvette shaving preparations. They contain a 'wetting agent' which makes water—wetter. By reducing the surface tension of water Corvette carries beard-softening moisture to the base of every bristle.

In other words—Corvette shaves a man better. And it has a big plus for the chemist as well. The Corvette matching range looks good on any counter. It is a quality line that attracts business and yields better than average profit.

SHAVING STICK 2/9. SHAVING BOWL 5/3. LATHER SHAVING CREAM 2/9. BRUSHLESS SHAVING CREAM 2/9. HAIR CREAM 3/-. BRILLIANTINE 3/9. SOLID BRILLIANTINE 3/3. TALCUM POWDER 4/-. AFTER SHAVE LOTION 3/9.



Corvette

Goya (Men's Division) 161 New Bond Street, London W.1.

FOR YOUR HOLIDAY DISPLAY—



This Wisdom Weather Forecast is the ideal centre-piece—IT'S FREE

The Wisdom Holiday Forecast Showcard gives the famous Bartlett Brothers' prediction for holiday weather for the whole country for each of the months June to September. We don't have to tell you that this is information *everyone* wants to have!

Printed in full colour, it is the perfect centre-piece for your holiday display. This universal showcard will help you to sell many holiday requirements besides toothbrushes, but most of all it will sell toothbrushes—because holiday time is the time that most people like to get a new one. So surround it with a good selection of Wisdom—now easily Britain's best-selling toothbrush. You'll get results!

Be wise ... sell **Wisdom** REGD.

THE QUICKEST-SELLING TOOTHBRUSH

To get your showcard, fill in and post this coupon

To: ADDIS LIMITED, BRUSHWORKS, HERTFORD

Please send me your free Wisdom Holiday Forecast Showcard

(NAME AND ADDRESS OR BUSINESS STAMP)

MADE BY ADDIS LTD., OF HERTFORD



There's
REAL
PROFIT
here
too!

D.D.T.

FLYPAK
THE NEW NEATER PRODUCT THAT
kills flies cleanly!



Write for Terms etc., from the Sole Distributors:

DALMAS LTD.,
Junior Street, LEICESTER and 140/142 St. John Street, LONDON, E.C.1

1793

THE **NEW**

CHLOROPHYLL

IN **CAPSULE** FORM

PURAPHYL

In bottles of 30 Capsules—

Retail selling price - 2/6d.

In sealstrips of 6 Capsules—

Retail selling price - 6d.

Both packed in attractive display outers of
12 bottles or 24 sealstrips

Advertising Campaign
starts 1st JULY

ALL ENQUIRIES TO
WEST CENTRAL LABORATORIES

42 THEOBALDS ROAD,
LONDON, W.C.1

TELEPHONE: HOLborn 2202-3-4. 8986-7

The Silky Soft Absorbent
Tissue that is preferred

Vanity

HANKIE TISSUES
RETAILS FROM 1/6d.



4d.
POCKET PACK

for Travel, School, etc. (24
large size White Tissues)
In the carton that does not
disintegrate in use.

BOUDOIR CARTONS

(150 in White or assorted
Pastel colours) or Cellophane
Wrapped 150 and 180;
assorted shades if required.

FREEDER BROTHERS PAPER MILLS
BRIMSDOWN, ENFIELD, MIDDLESEX
Telephone: Howard 1847 (3 lines) Telegrams: Sylkacrep, Enfield, Middlesex

PENICILLIN PREPARATIONS

LOZENGES · TABLETS · OINTMENTS · Etc.

Aids to Dispensing Outfits of Creams and Drops

MANUFACTURED BY



DISTRIBUTED BY

MOORE MEDICINAL PRODUCTS LTD

1 QUEENS TERRACE
ABERDEEN. Tel: 27233

64 GLOUCESTER PLACE
LONDON, W.1. Tel: WELbeck 5718/9

Detailed Price List on Request.

Every DANDRUFF SUFFERER is a customer for

Gill's DANDRUFF REMOVER SHAMPOO

Gill's definitely removes dandruff at the first application. Word of mouth recommendation alone is bringing ever increasing sales throughout the U.K.—it's a first-class product selling at a reasonable price and showing generous profit to the retailer. You can recommend Gill's with the utmost confidence, and it's suitable for children as well as adults. If you would like to try it yourself, write on business heading for a Free Sample. Fully descriptive literature with extracts from many hundreds of unsolicited testimonials gladly forwarded on request.

Available from all good wholesalers at 16/8 dozen, to retail at 2/6 per bottle. Or direct—carriage paid on 3 dozen. Display material supplied.



★ Gill's Dandruff Remover Shampoo is also made and distributed in Belgium, Eire, France, Denmark, Sweden, Holland, Switzerland, Italy, Spain, Portugal and Turkey.

BEAUTISALES LTD. 35 Old Bond Street, London, W.1 Telephone REGENT 2565-6

The Newly Discovered Growth Factor is

**NOW OFFERED TO THE
PUBLIC FOR THE FIRST TIME!**

Children need the growth factor
in **BENEFAX**



What **BENEFAX** *is*

BENEFAX is a pure concentrate of liver prepared by a special process that retains a new growth factor that helps children to reach the full peak of natural growth, health and vigour. **BENEFAX** cannot cause excessive growth—it can only do good. Made in pleasantly flavoured sugar-based tablets that look—and taste—like sweets.

tastes like a sweet

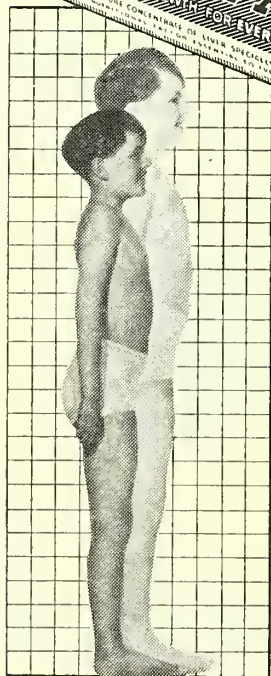
What **BENEFAX** *does*

Dramatic evidence of the need for **BENEFAX** was demonstrated in the following test:

Ordinary healthy boys and girls were divided into two equally-matched groups. Those who were given the new growth factor for 13 weeks grew an average of 20% more in height and 40% more in weight than those who did not have it (British Medical Journal, June 28th, 1, 1388, 1952).

BENEFAX contains the newly-discovered growth factor often lacking in the normal daily diet.

BENEFAX improves children's **GROWTH, HEALTH & ENERGY**

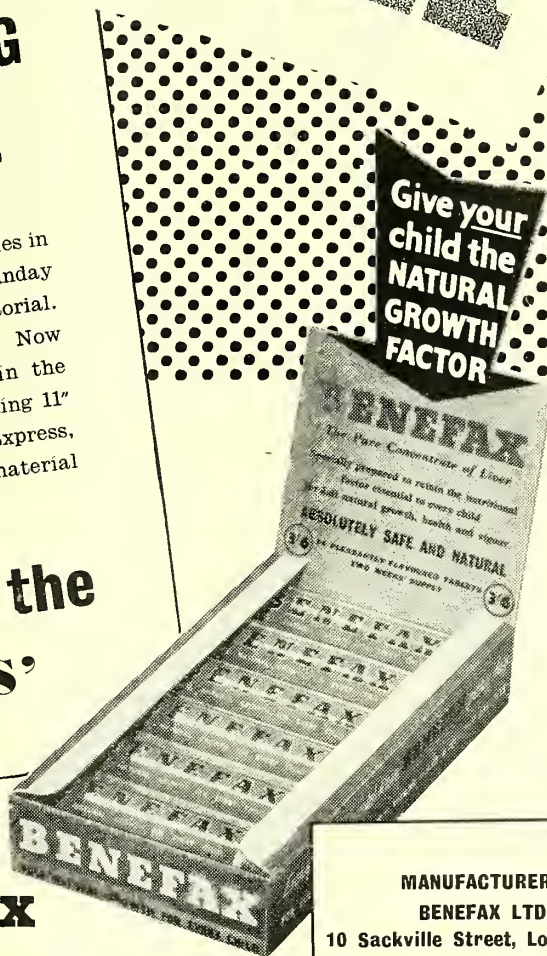


n BENEFAX

NATIONAL ADVERTISING FOR BENEFAX...

The growth factor in BENEFAX has already hit the headlines in special news stories reaching millions of readers of the Sunday Express, Daily Express, Daily Graphic and Sunday Pictorial. Thousands of readers wrote in to demand the product. Now BENEFAX is launched with powerful press publicity in the national daily, Sunday and provincial newspapers, including 11" triple column advertisements in the Daily Mail, Daily Express, etc. Supporting dealer aids include eye-catching display material and attractively designed hygienic pack.

...starts June 26 in the
'DAILY EXPRESS'



GENEROUS TRADE TERMS FOR BENEFAX

BENEFAX retails at 3/6d per tube (each tube contains two weeks' supply), and comes to you at 28/- per dozen, packed in half-dozen counter display outers. BENEFAX is not subject to Purchase Tax. Special introductory offer of 13 to the dozen on every order PLUS the initial free gift of one 3/6d BENEFAX already sent to you and every chemist in the country.

MANUFACTURERS:

BENEFAX LTD.,
10 Sackville Street, London, W.1.

DISTRIBUTORS:

Tampax Ltd.,
Sales Office, 110 Jermyn Street,
London, S.W.1.

Order **BENEFAX** through your wholesaler



Here comes
Glamour—
THE NEW
Araby CORONATION
BEAUTY SOAP
ENRICHED WITH LANOLIN



NEW, in this year of grace—a smooth, creamy beauty soap, superfatted, enriched with lanolin.

NEW. It has an alluring perfume of magical quality—a distinctive fragrance that you will love.

NEW. A luxury soap at only 6d. — new family size 10½d — the price of an ordinary toilet soap. Already there is excitement about this wonderful new Araby. Look what they're saying...



'what a heavenly perfume'

New Araby has a thrilling perfume that lasts as long as the soap itself—a subtly haunting fragrance that first attracts, then captivates.

'what a gorgeous lather'

Only the purest of soaps could give you such luxurious and lasting lather... Only the lanolin content of new Araby makes possible such slipper-satin smoothness.

'such amazing VALUE'

Just think of it—the New Araby with all its new goodness and enchantment comes to you at the same small price—only 6d.

Catch the endearing fragrance of this lovely soap. Revel in the caress of its smooth and creamy lather, so gentle, so purifying—the very basis of your beauty.

J. BIBBY & SONS LIMITED, KING EDWARD STREET, LIVERPOOL, 3
Makers of Cidal Soap and Cidal Cream Shampoo (both of which contain Hexachlorophene)

Here is one of the striking advertisements now appearing in national newspapers circulating to 13,500,000 people. This is what Bibby are doing to help you sell the New Araby. Take advantage of this great publicity drive by displaying the New Araby in your windows... on your counters. Your co-operation at the point of sale is vitally important if you want your full share of the extra business resulting from this powerful advertising campaign.

J. BIBBY & SONS LIMITED, KING EDWARD STREET, LIVERPOOL, 3
Makers of Cidal Soap & Cidal Cream Shampoo (both of which contain Hexachlorophene).



A wonderful
addition to the
Inecto range...

INECTO

FOUR-IN-ONE SERIES

Specially prepared for dealing with drab or faded hair or just that *touch* of greyiness. Colours permanently, brightens and conditions—in one application.

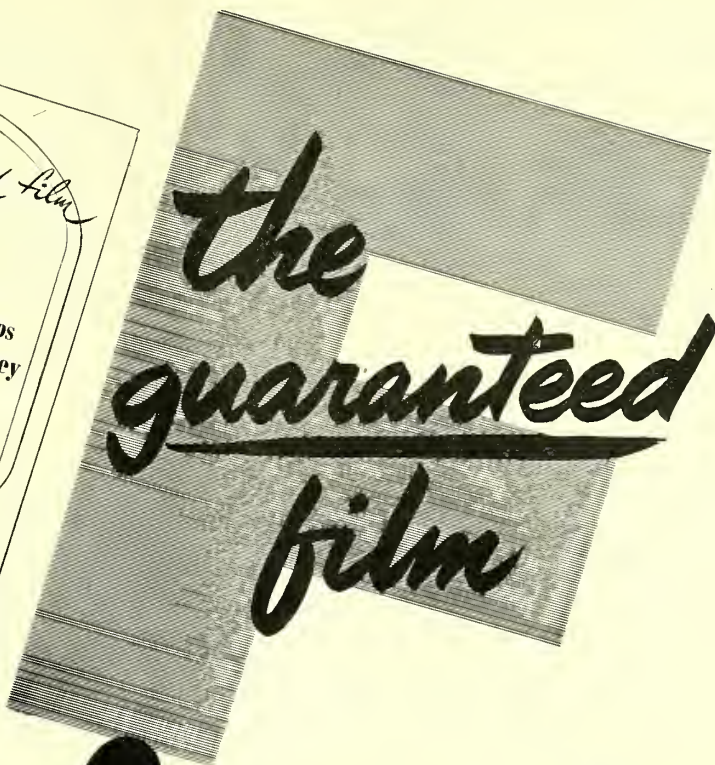
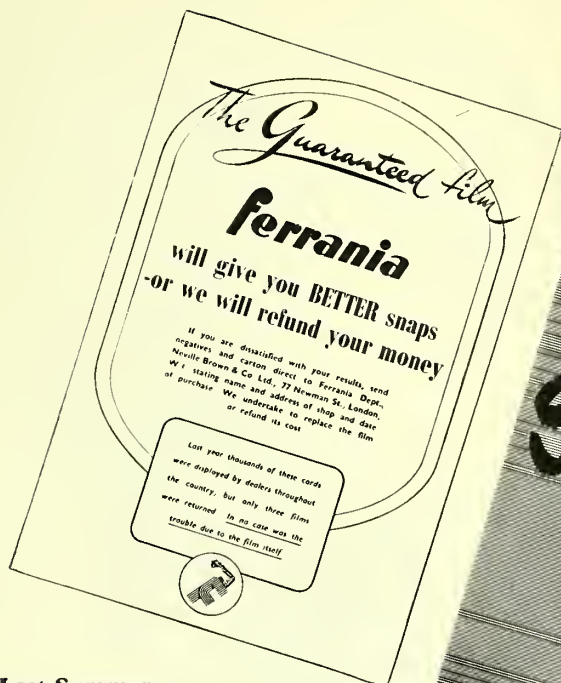
★ 12 lovely NEW shades:

- | | |
|----------------------|-----------------|
| 14 Blue Black | 20 Golden Brown |
| 15 Dark Brown | 21 Light Bronze |
| 16 Medium Warm Brown | 22 Honey Blonde |
| 17 Light Chestnut | 23 Smoke Blonde |
| 18 Ash Brown | 24 Haze Blue |
| 19 Bright Auburn | 25 Copper Glow |

IN ATTRACTIVE HOME PACK
Price 2/6 Wholesale plus P.T., 5/6 Retail

RAPIDOL LTD., 27 DOVER STREET, LONDON, W.1

Regent 7541 (12 lines)



ferrania

Last Summer, we broke new ground by definitely guaranteeing every Ferrania film. Thousands of showcards were displayed by dealers throughout the season yet only 3 films were returned. These were gladly replaced, even though no faults were found in the film itself. This year a new and more attractive colour showcard is available.

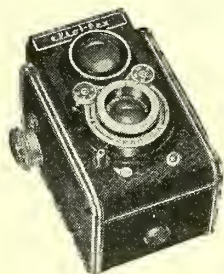


IN this Coronation year, more photographs will be taken than ever before. To capture an even greater share of the market, we are advertising Ferrania film in the photographic press, and in the "Personal" columns of more than fifty National Newspapers, magazines and "hobby" publications with a combined readership of many millions.

Tie up with this bigger-than-ever campaign by window and counter display: we will send you a wide range of colourful sales aids in any reasonable quantity. These include dummy cartons from actual size, up to 20"; cut-out Ferrania figures in 5 sizes; showcards; photogravure folders; stickers and posters; poster stamps; technical data leaflets.

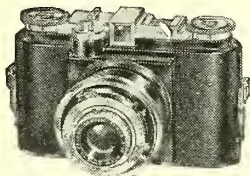
You can do big business with the only **guaranteed** film.

● FERRANIA QUALITY CAMERAS

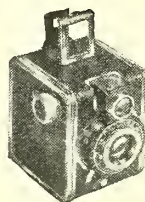


ELIOFLEX

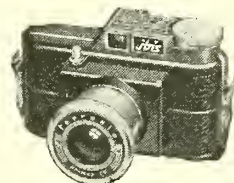
£11 - 18 - 6



ASTOR £29 - 17 - 6



RONDINE £5 - 8 - 8



IBIS £3 - 15 - 0

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Telephone: LAngham 7161 (10 lines)

Increase your holiday sales with

Marina

WOVEN FACE CLOTHS

★ FOUR STYLES

★ VARIED DESIGNS

★ SOFT AND DURABLE

	Style	Doz.	[Retail each
	No. 1	8/-	1/-
	No. 2	12/-	1/6
	No. 3	16/-	2/-
	No. 4	20/-	2/6

Each face cloth in printed cellophane wrapper—twelve face cloths in this attractive display carton

All goods carriage paid in free packages



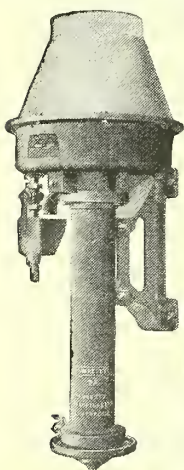
MACDONALD & SON LTD · HOPE MILLS · POLLARD STREET · MANCHESTER 4.

SAVE MONEY, TIME and SPACE
*by making your own
distilled water with a*

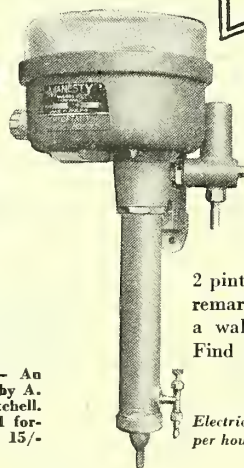
MANESTY

AUTOMATIC STILL

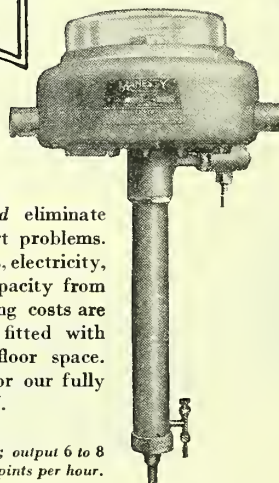
By having a MANESTY Automatic Still installed, you can ensure a constant supply of fresh pure distilled water and eliminate storage, handling and transport problems. MANESTY Stills, heated by gas, electricity, paraffin or steam, range in capacity from 2 pints to 50 gallons per hour. Running costs are remarkably low and each model is fitted with a wall bracket to further conserve floor space. Find out more about them. Send for our fully illustrated leaflets TO-DAY.



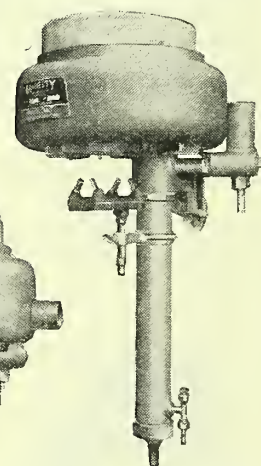
Steam-heated 2A;
Output 8 gallons per
hour.



Electric OB; output 3 pints
per hour



Electric OOB; output 6 to 8
pints per hour.



Gas-heated OOB;
Output 6 to 8
pints per hour.

Have you this Book?
"Tablet Making" — An
authoritative volume by A.
Little and K. A. Mitchell.
123 pp. 47 illus. 31 for-
mulae. Cloth bound. 15/-
net. Post free.

MANESTY
Machines and Stills
are now used in
over 60 countries.

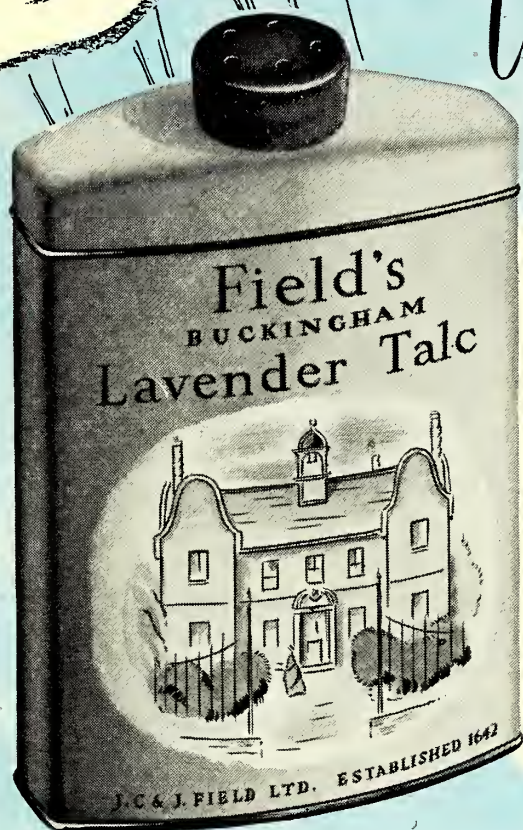
MANESTY MACHINES LTD., DEPT. 5 SPEKE LIVERPOOL, 19

Telephone: Hunts Cross 1972

Telegrams: Manesty, Liverpool 19

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*Lovely
Lovely
Lavender*

IN JUNE, FIELD'S, makers of Lavender fragrance products since 1642 will launch their new Buckingham Lavender range with the biggest advertising campaign ever devoted to a single fragrance range. Full colour pages will appear in Picture Post and all the leading women's magazines. A half-page in the Sunday Express and many other large space press advertisements will continue the campaign right through to Christmas.

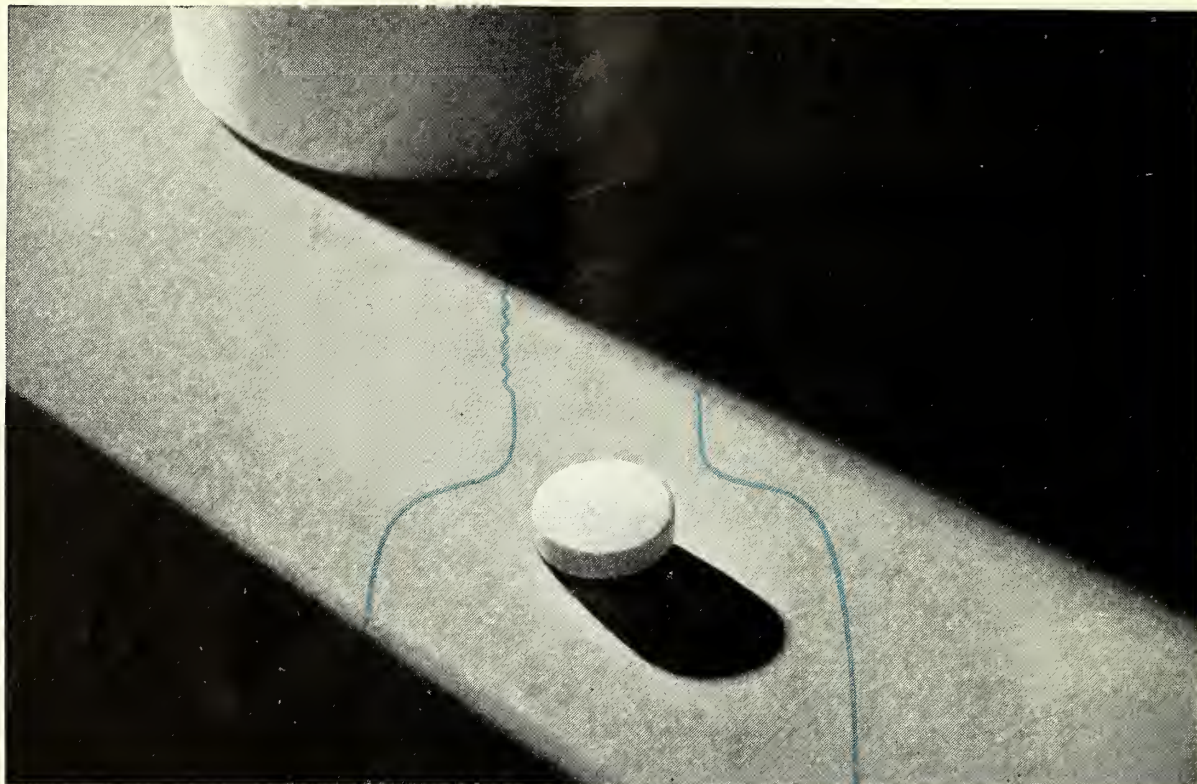
THIS colossal campaign is justified by the strength and quality of the fragrance and the exceptionally attractive packages.

LAVENDER is always popular. We believe Field's Buckingham Lavender is unsurpassed in strength and quality. Please link up your counter and window displays with this tremendous campaign by using the specially designed display material.

Lavender Soap 10d

Lavender Talc 2/6

Field's BUCKINGHAM Lavender



MONSANTO for fine chemicals

with a fine reputation . . .

Monsanto is one of the largest producers and suppliers of acetyl salicylic acid BP to the world's manufacturers.

Monsanto's salicylate products are in plentiful supply, with immediate delivery assured. Acetyl salicylic acid is available in powder, crystal or granular form (ASPIRGRAN*), ready for direct tableting. Other pharmaceutical chemicals include:—

Methyl Salicylate BP, Sodium Salicylate BP, Salicylic Acid BP, Salicylamide, Salicylic Acid (Technical), Sodium Benzoate BP, Phenol BP, Phenolphthalein BP, Phenacetin BP, Benzoic

Acid BP, P.C.M.X., P.C.M.C., Cresantol*-15, Cresantol*-3, D.C.M.X.

Write for full information.

(*Registered Trade Marks)

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Victoria Street,
London, S.W.1.



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AND BANDAGES**

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Plain and Sterilised



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OUR MODERN HYGIENIC FACTORIES**

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Sanford

Manufacturing & Trading Company Limited

RUSSELL HALL · DUDLEY · WORCS

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CETRIMIDE B.P.

TRADE MARK

on the farm

Among farmers today there is a steadily growing enthusiasm for 'Cetavlon', as the most efficient safeguard for dairy herds against mastitis infection. Proved in extensive trials carried out by Ministry of Agriculture research workers, 'Cetavlon' is a potent bactericide and detergent, with a specific lethal action on the organisms causing mastitis.



For the farmer, two special formulations are available—a concentrated solution, and an emollient cream. They can be recommended with confidence for :

- Anti-mastitis control measures
- Treatment of teat sores and chaps
- Cleansing and disinfection of wounds, etc.

'CETAVLON' CONCENTRATE M.C.

Bottles of 1 pint

'CETAVLON' UDDER CREAM

Cans of 1 gallon Tubes of 100 grammes Jars of 500 grammes



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A subsidiary company of Imperial Chemical Industries Ltd. WILMSLOW, MANCHESTER



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In consistency, flavour and cleansing property, Phillips' Toothpaste meets all the needs of a first-class dentifrice. It can confidently be recommended to customers requiring a product of proved efficacy in keeping the teeth scrupulously clean and to bring out their

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Phillips' Toothpaste possesses an advantage which may be claimed by no other dentifrice, it incorporates 'Milk of Magnesia' which neutralizes on contact the mouth acids which are a predisposing cause of dental decay and gum irritations.

Phillips'* DENTAL MAGNESIA REGD. *Toothpaste

The other Phillips' Proven Products are:—

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Of unsurpassed efficacy in the treatment of a wide variety of conditions associated with gastric acid disturbances.

'Mil-Par' REGD.

A genuinely mild evacuant ideally suited for administration to young infants, the enfeebled, sick or elderly.

'Milk of Magnesia' Tablets REGD.

Particularly valuable to the chronic or casual sufferer from dyspepsia and acid indigestion. Pleasantly mint flavoured.

'California Syrup of Figs' REGD.

Compounded from the natural extracts of senna and figs. A gentle yet efficacious laxative for family use.

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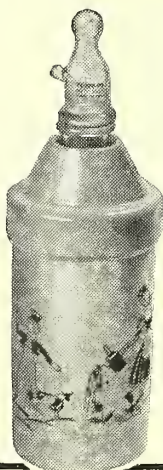
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which are boosting
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Illustrated on the left is the Button Front style in super quality drill. Available in fast colours: Mid-Green, Celestial Blue, Sail Red, Fuchsia Pink, Beige, Royal Blue, Grey and Navy. SW 26/-, W and WX 28/-, OS and XOS 30/5. Also in White. SW 22/6, W and WX 25/-, OS and XOS 27/6. Also available from stock are Men's White or Khaki Drill Long Coats, 26/6. White or Grey Drill Jackets 20/-, Navy, Khaki or Tan Drill Jackets 21/-. R.A.F. Style Boiler Suits, Navy, Khaki, Tan or White 37/6.

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Flycards 6d.		Packets (3)	



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IMPERIAL CHEMICAL INDUSTRIES

MR. J. ROGERS ON "THREAT OF NATIONALISATION"

The 26th annual general meeting of Imperial Chemical Industries, Ltd., was held on June 18 in London.

Mr. J. Rogers, O.B.E., LL.D., chairman of the Company, in the course of his speech, said:—

Your Directors remain alive to the importance of adapting the Company's operations and organisation to meet changing conditions. Perhaps I may be allowed to dwell a little longer on this aspect of our affairs.

Your Company's activities range widely over the chemical field and indeed are not confined to that field, embracing as they do, for example, non-ferrous metals, "lightning" fasteners, paints, leathercloth, and some semi-fabricated plastic materials. Its products are numbered in thousands and they are supplied to many industries. The organisational problems that confront your Company are therefore much more complex than those experienced by undertakings concerned with the manufacture of one or two main products. Your Company's research and development work is directed towards improving its existing manufacturing processes, developing new processes, developing new uses for its existing products, and to discovering new products and creating markets for them. On this work of research and development we are now spending at the rate of about £7,500,000 a year. Today we are making many products which were unknown before the war, and some of our methods of producing our older and more traditional products are very different and much more efficient than they were before the war. We can expect our new products to contribute an increasing proportion of the Company's profits.

This process of change and development must go on if the Company is to remain vigorous and prosperous, for the chemical industry still has great possibilities for expansion, and in expanding, it can contribute much to the national economy. Such expansion calls for more, not less, research and development and this work must be well inspired and well led. Not every research results in a new product or a better process, and it may take seven to ten years or even longer to pass from the first research result to commercial production.

PLANTS AT HIGH EFFICIENCY

Here at home your Company has maintained all its productive plants at a high level of technical efficiency, and we are constantly striving to improve our manufacturing processes. We are in the forefront in the study and application of modern methods of increasing productivity, and we are now giving our knowledge and experience in this field freely to British industry in general.

The steadily improving efficiency of your Company's operations means lower costs of production, and these lower costs are reflected in the selling prices of our products. We have had to advance the selling prices of many of our products in recent years because of increasing costs of raw materials and rising wages and salaries, but we have been able to offset these cost increases to a considerable extent by savings resulting from improved methods and increased efficiency. As a result, our prices are, in general, lower than those ruling in America and in Europe.

You will remember that four years ago Lord McGowan told you that the whole Board of I.C.I. took the view that your Company is not an appropriate subject for nationalisation. That remains the view of your Board today, in whatever form State ownership is suggested. Lord McGowan also said that the Board would take all proper steps to oppose the nationalisation of your Company if the attempt were ever made. Let me renew that assurance. You will, I am sure, agree that it would be contrary not only to the interests of the stockholders and of those employed by your Company but also to the interests of the country as a whole for I.C.I. to come under any form of State ownership.

"CHALLENGE TO BRITAIN"

I have just read the Labour Party's pamphlet called "Challenge to Britain." There is nothing in that document to cause me to change my view that any form of State ownership would be extremely detrimental.

The main reason given in the pamphlet for this programme of public ownership is that chemical production must expand to keep pace with the enlarged requirements of other basic industries. Of course chemical production must expand, and this is exactly what has taken place in the Industry as a result of the enterprise shown by those in it. My speech today emphasizes the expansionist policy which I.C.I. has consistently pursued. I.C.I. is meeting every demand for chemical materials made upon it in the United Kingdom, and the average level of prices is lower than that in the U.S.A. and Europe. In addition its exports have increased very substantially in volume and in value since the war and are now running at over £1,000,000 per week. I can say without qualification that no company has a finer record of expansion and enterprise.

Why then should public ownership be suggested as a safeguard against possible shortages, which do not exist, and which will never occur, if Private Enterprise is permitted to go ahead? Surely the experience of the State-owned industries is convincing evidence that whatever else may be said about State ownership it is no guarantee that production will keep pace with increasing demand. I can only hope that those responsible for "Challenge to Britain" will give the whole subject further factual study and that in the long run wiser counsels will prevail.

TERYLENE

The plant to manufacture 'Terylene' at Wilton on a large scale is planned to be in operation by the end of next year. The new articles of 'Terylene' clothing which you may occasionally see in certain shops are made from 'Terylene' produced at a small pilot plant at Hillhouse. After the most careful assessment of market requirements we are already putting in hand plans for a large extension of the Wilton plant, even though the first unit of that plant is not yet in production. This is a good illustration of the point which I made earlier that an increasing proportion of the Company's productive efforts is being devoted to products which were unknown before the war. As already publicly announced, we have decided to manufacture 'Terylene' in Canada as well.

CHAIRMAN'S RETIREMENT

I should like to finish on a personal note. This is the last occasion upon which I shall occupy this Chair. As announced to the Press immediately after the Board Meeting on the 15th May, I am retiring both from the Chair and from the Board at the end of this month. I have been a Director of this Company since its formation twenty-seven years ago and my association with Nobels, one of the constituent companies which were merged on the formation of I.C.I., goes back to the beginning of the century. May I take this opportunity of thanking my colleagues for all their help, their kindness and their co-operation during my long association with them and particularly for their support since I took over the Chairmanship from Lord McGowan two and a half years ago. You can be sure my successor, Dr. Fleck, will be given similar support.

The report and accounts were adopted.

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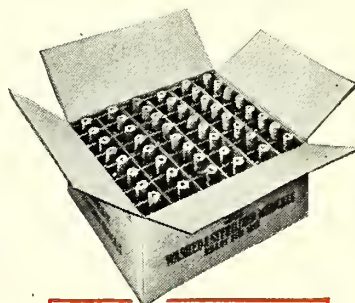
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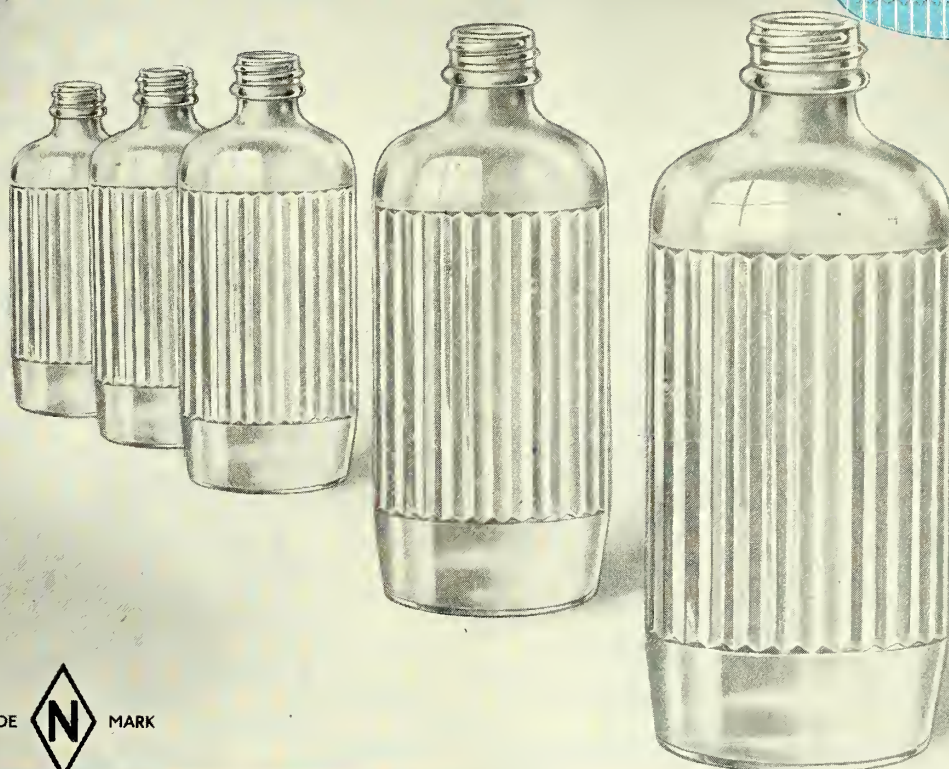
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Hexital: Bottles of 100 and 500 tablets.

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Nidoxital: Bottles of 12, 20 and 100 capsules.

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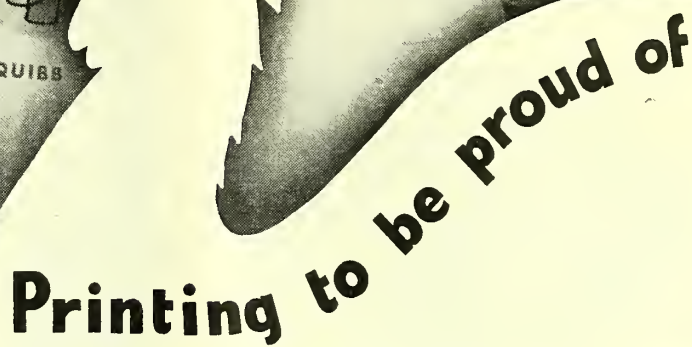
Nutri-Sal: Packages of 3 vials, each sufficient for 1 pint douche solution.

Supplies through your usual wholesaler, please!



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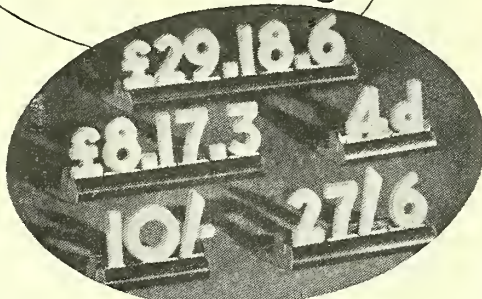
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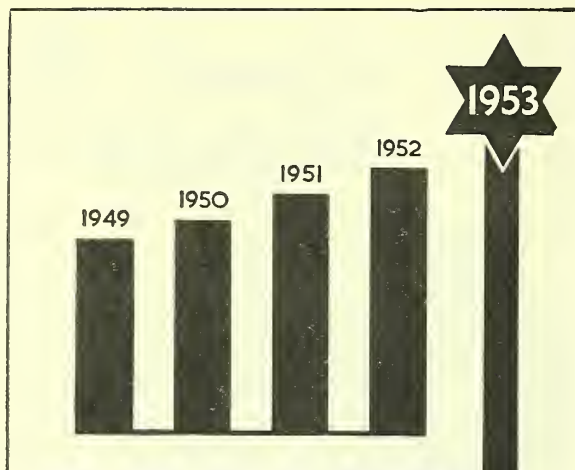
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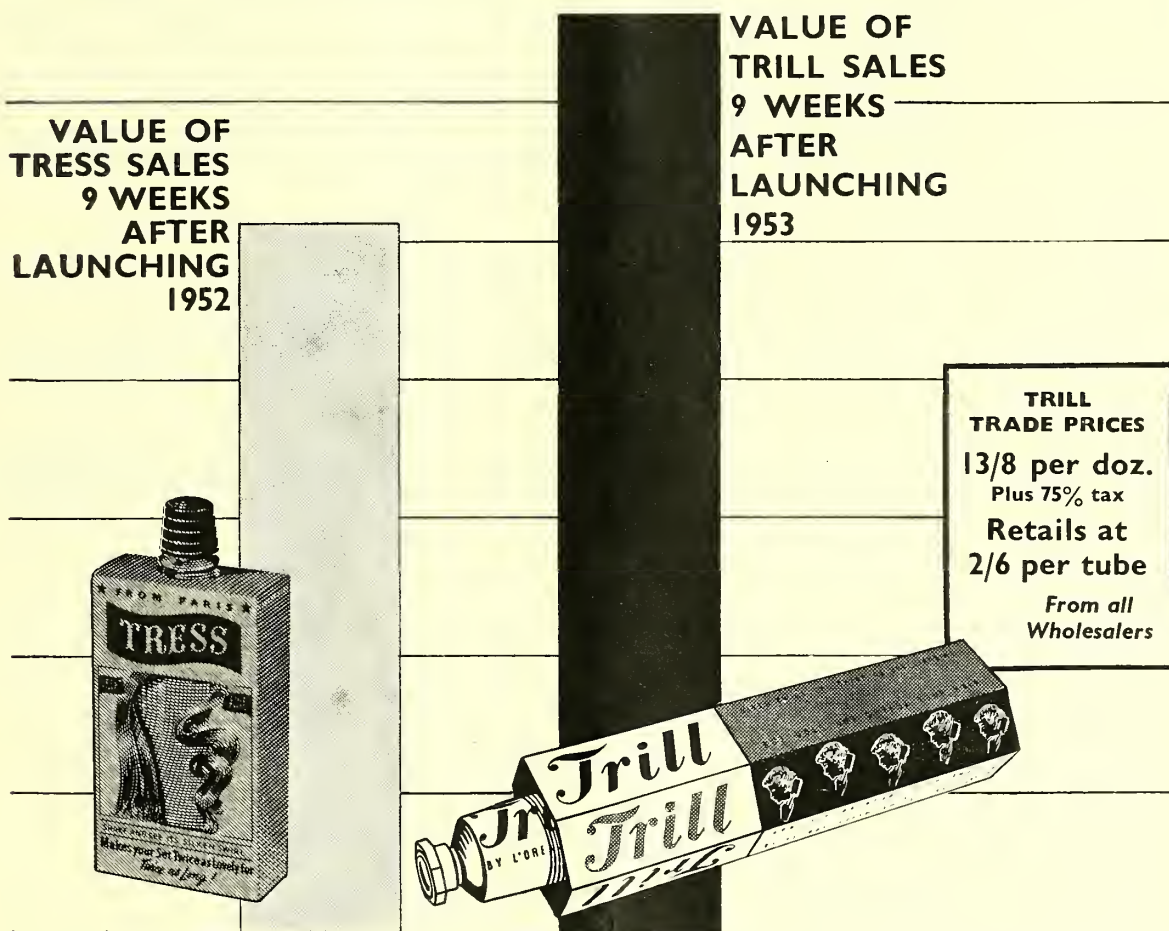
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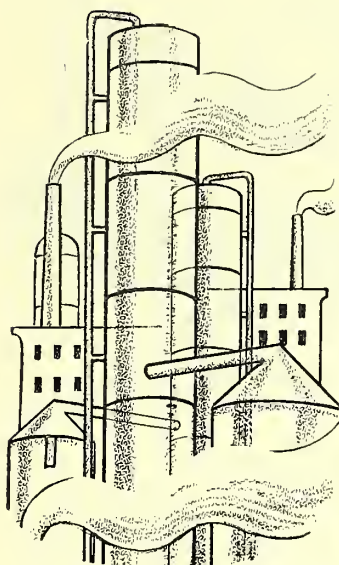
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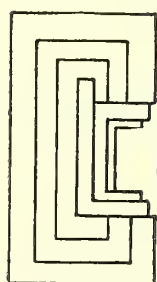
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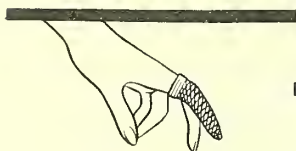
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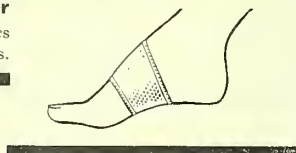
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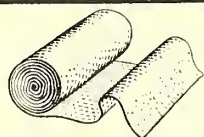


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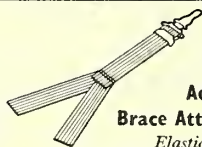


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A Lastonet band with a
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arch strain and tired feet



Lastonet Elastic Bandage
Supplied with ordinary National
Health prescription Allows full
mobility whilst providing firm
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Elastic For male
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NATIONAL FORMULARY
1952

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300 REGULAR SIZE TISSUES (150 double handkerchiefs)	Retail 2/9
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150 ECONOMY SIZE TISSUES (75 double handkerchiefs)	1/-
(5% discount on every 5-case order)	



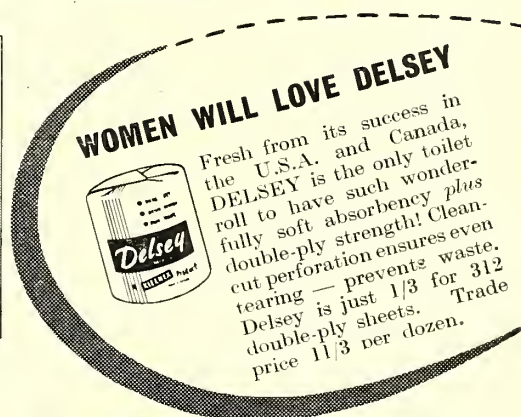
Advertisements like this will help you sell Kleenex all summer long.

ORDER THROUGH YOUR WHOLESALE TODAY

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MADE BY CELLUCOTTON PRODUCTS LTD. LONDON W.2

•Reg. T.M.



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recommend

**Rayner's
Lembar**all the year
hot or cold

Lemons

Glucose

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**15,000,000 WOMEN
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APPROVED BY THE MEDICAL PROFESSION

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'Laleek' Wax-a-Way recommended for facial treatment is definitely the most satisfactory Wax Depilatory marketed today. It now retails at 7/9 incl. Tax. 'Laleek' Coolwax is for use on the arms and legs. Economical to use and most effective. Retail at 5/2 incl. Tax. Both depilatories are harmless to the most sensitive skin.

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**BEAUTY PREPARATIONS**

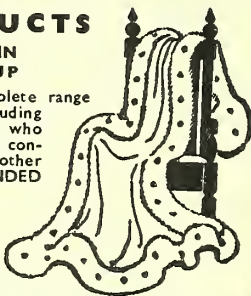
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protects children against accidental poisoning

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for pills and tablets**available from all wholesalers
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THE CHEMIST AND DRUGGIST
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HERE'S the THING**CALSOL MILK** made by **JEFFREYS MILLER & COMPANY LIMITED.**
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when fungus is afoot...

'TINEAFAX'

COMPOUND UNDECYLENATE OINTMENT AND
UNDECYLENATE POWDER



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This applies to all our products: sure selling

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All are available

FROM CHEMISTS ONLY

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WHEN THEY ARE MADE BY**

Armstrong's

Armstrong Cork Company Ltd., Closure Division



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Monday's child has strained lean beef!



Heinz Strained Foods—dinner for Anne, Ruf, and Frances

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All over Britain mothers have taken the advice of their Doctors and ordered, baby's diets that include strained meats, fruits and vegetables. And Heinz make these foods specially well.

We work every mother could see the freshness of the foods prepared in the Heinz factory, the scrupulous care that goes into the cooking and straining. This, indeed, would convince them that Heinz Strained Foods are the finest baby food.

For full advice on mixed feeding, read "From Milk to Mixed Diet," free from Dept. Q 23, H. J. Heinz Co.



Her varied diet means more sales for you!

Yes, "variety" is a word that stands for big business in strained foods.

Since 1939 there has been a phenomenal increase in strained food business. And there are good reasons why strained foods sales continue to rise.

Doctors and Nurses are advising an early *varied diet* for babies. And Heinz advertisements like the one shown here appear regularly in the most influential women's magazines. They sell Heinz Strained Foods to mothers all over the country.

These mothers will expect a variety of Heinz Strained Foods in your store. They'll send your strained foods business up by leaps and bounds—if you stock and show all seventeen varieties of Heinz Strained Foods.



57 HEINZ STRAINED FOODS

17 varieties: each 7d.



THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 159

June 27, 1953

No. 3827

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Æstrone B.P.C.	MENFORMON
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Testosterone Phenyl Propionate	T.P.P. ORGANON

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h o r m o n e s o r g a n o n

The CHEMIST AND DRUGGIST

Volume 159

JUNE 27, 1953

No. 3827

Purchase Tax Clause Rejected

GOVERNMENT STILL "CONCERNED"

A PROPOSED clause to give power to the Treasury to mitigate, by regulations, the financial loss to traders resulting from the reduction in the rate of Purchase Tax, was rejected after a debate in the House of Commons on the committee stage of the Finance Bill on June 22. The Financial Secretary to the Treasury (MR. J. A. BOYD-CARPENTER), however, said that the Government would consider "frankly and honestly" any proposals put forward to solve the problem and admitted that the Government had been concerned about the fall in production prior to the Budget.

During the debate, MRS. B. A. CASTLE, who moved the new clause, said that by accepting the Hutton Committee's recommendation that purchase tax should be reduced progressively and in small doses (*C. & D.*, March 21, p. 281), the Government had warned every industry that every year, under the present Government, they could expect a further percentage cut in tax. That would have profound repercussions on a wide range of manufacturing industry from October onwards.

SIR HAROLD WEBBE urged the Government that they must go on trying to find a solution and backed the proposal that the tax should not be changed only in a Budget. Was it not possible, he asked, if the Chancellor saw that things were going reasonably well, to make a small overall reduction in tax unannounced and not at any definite date? It could be a small amount, say 5 per cent. cut all round. Then, a little later, he could make another 5 per cent. cut.

DRUG EXPORT CONTROLS

Items freed from July 1

THE Board of Trade has announced certain changes in their export licensing controls which will take effect from July 1. Those affecting drugs and chemicals are: 1. Acetic anhydride and bismuth compounds may be exported without licence to the Commonwealth (excluding Hong Kong), the United States and Irish Republic. 2. Licences will not be required (except for exports to China, Hong Kong, Macao or Tibet) for exports of the following drugs and chemicals:—

Arecoline and its salts; calcium pantothenate; ephedra; ergotamine tartrate; hesperidin; inulin; laevulose; lobeline and its salts; phthalic anhydride; pituitary gland posterior lobe and its extracts; salicin; tocopherols, their esters and preparations thereof containing more than 20 per cent. by

weight of tocopherols or their esters. The item in group 13 (1) of the First Schedule of the relevant Order, "Ipecacuanha and extracts thereof," is amended to read: "Ipecacuanha root and rhizome."

PHARMACISTS' UNION

Council's annual report

THE recently issued annual report of the council of the Registered Pharmacists' Union states that during 1952, the Union's activities were centred mainly on the protection of pharmacists, and their right to "freedom of association." The R. P. U. continues the report "knows no frontiers where the professional livelihood or professional status of a brother pharmacist is at stake." The results of a card ballot vote of members on the subject of recognition by the Pharmaceutical Society of unqualified assistants were 97 per cent. against recognition by the Society; 2 per cent. in favour, subject to adequate safeguards; and 1 per cent. of the opinion that the Apothecaries'

Hall examination was sufficient. The report of the treasurer (Dr. D. J. Gibson) states that "the primary function of a trade union's treasurer is to see that sums received are expended in the most profitable manner for the advancement of the Union's ideals, while at the same time maintaining a sufficient balance to meet any emergencies which may arise. This, I would suggest, the R.P.U. has accomplished in the past year." The balance sheet and statement of accounts shows that 1952 started with a credit balance of £390 and finished with a credit balance of £446. The reports and balance sheet were adopted and passed.

FOOD ANTIOXIDANTS

Representations invited

THE recommendations on antioxidants in food approved by the Minister of Health (*C. & D.*, June 20, p. 653) were approved for publication only. Representations from interested parties should be sent to the joint secretary of the Preservatives Sub-committee, Food Standards Committee, Food Standards and Hygiene Division, Ministry of Food, Great Westminster House, Horseferry Road, London, S.W.1. by September 30.

MEDICAL LIBRARIANS

First international congress

THE first international congress on medical librarianship will be held under the presidency of Sir Cecil Wakeley at University College, London, from July 20-25. Full details may be obtained from The Secretaries, First International Congress on Medical Librarianship, c/o London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1.



NORTHERN IRELAND SOCIETY'S COUNCIL OUTING: Mr. W. H. Boyd (president, Pharmaceutical Society of Northern Ireland) and members of the Society's Council who held their June meeting in Londonderry, with Mr. Eugene O'Hare (chairman) and members of Londonderry and Strahane Chemists' Association, pictured prior to leaving Londonderry on a visit to Greencastle, co. Donegal. The Council of the Pharmaceutical Society of Northern Ireland were the hosts.

CONFERENCE GUIDES

Ladies Wanted

THE ladies' committee of the 1953 meeting of the British Pharmaceutical Conference announces that although it has received a number of offers of help as guides on excursions during the Conference week they are still in need of further assistance. Any ladies living in the London area who are attending the Conference and who would be willing to help in this way are asked to send in their names at once to the Secretary of the Committee, Mrs. H. Treves Brown, Rivelin, Hillside Road, Pinner Hill, Middlesex, indicating when they will be available.

WORLD PHARMACY

15th Assembly to be in Paris

THE fifteenth general assembly of the International Pharmaceutical Federation will be held in Paris from September 13-20. Applications to attend should be lodged before September 1 with *Secrétariat de la XV^e Assemblée Générale de la Fédération Internationale Pharmaceutique*, 4 avenue Ruysdaël, Paris (8e).

LOCAL NEWS

Window Wins Two Prizes

THE Coronation display of Mr. H. Wright, High Street, Edgware, Middlesex, won the second prize for Edgware and the third prize for Hendon in a Coronation window display competition. The window was educational, and was devoted to the progress of medicine during the present century. A central card indicating dates was linked by tapes to exhibits which included a bottle of black draught and its ingredients, hormones, an ox pancreas, insulin preparations, sulphonamide preparations, and a display devoted to antibiotics including models of the organisms producing penicillin and streptomycin. The future of medical progress was indicated with a display of cortisone and ACTH. A number of bronze mortars including one showing a Tudor rose and another the Lion of Scotland gave a topical note to the show. The descriptive matter was written by Mr. Wright.

Staff Outing

THE staff of J. R. Gibbs, Ltd., wholesale chemists and druggists, Paignton, Devon, had their annual outing on June 6. A pleasure-boat trip down the River Dart, was followed by a coach tour from Dartmouth along the coast to Kingsbridge, and back over the moors via Yelverton to Dartmeet for the evening meal. Mrs. Bcnstead, on behalf of the staff, thanked the directors and management, and recalled that she was one of the original members of a staff of four of the company. The party (of approximately 140) concluded the day with dancing and light entertainment by members of the staff.

Lack of Hospital Pharmacists

AT a meeting of the Manchester branch of the Guild of Public Pharmacists in Manchester on June 9, the

question of the shortage of hospital pharmacists was discussed. The view was expressed that management committees should be urged to bring the matter before the Association of Hospital Management Committees and Regional Hospital Boards. Mr. A. M. Mees (vice-president of the Guild) reported on the annual meeting at Sheffield on May 30. Messrs. G. Raine and G. F. Shepley reported on the branch delegate meeting in London on March 28. Mr. Haselgrove reported that he had attended a Civic service at Manchester Cathedral on May 31 as representative of the branch.

Food Poisoning Outbreak

AN outbreak of food poisoning reported in North-west Lancashire recently has been attributed to meat pies contaminated with *Salmonella morbilligans bovis* an infrequently isolated organism. On May 22 the number of suspected cases had risen to 1,090 of whom thirty-four were in hospital.

SCOTTISH NEWS

Scottish Annual Meeting

THE annual meeting of members of the Pharmaceutical Society resident in Scotland and the Branch representatives' meeting were held jointly in Edinburgh on May 27, Mr. H. T. Thomas in the chair.

THE CHAIRMAN said that the annual report had been circulated to all members of the Society resident in Scotland. He referred with regret to the death of Mr. James Henry (C. & D., January 24, p. 78) and to the death of Mr. George C. M. Stewart (C. & D., January 31, p. 101).

MR. C. CAMPBELL, Glasgow, said that he had noticed that in the past year there had been three co-options to the Executive of the Scottish Department. If there were any co-options, was it the next highest in the poll at the previous election who was co-opted?

THE CHAIRMAN said that that was the practice which they had followed in the past, but they were not bound to do that on every occasion.

MR. J. B. GROSSET, Edinburgh, asked the meeting to accord to the chairman a sincere vote of thanks. It was the end of Mr. Thomas' second year in the chair and he had always conducted the meetings very capably.

The chairman called upon Mr. C. G. Drummond to give his paper (see p. 685).

A meeting of the Scottish Executive was held earlier in the day. A letter had been received from Mr. F. W. Adams (a secretary and registrar of the Pharmaceutical Society) stating that the Organisation Committee of the Council had given approval to the proposal that the name of the Inverness and Northern Scottish Branch should be changed to "The Northern Scottish Branch."

Copies of the brochure "How to Become a Pharmacist" had been sent to various schools throughout Scotland, together with a covering letter from the resident secretary in which he suggested that if any school wished a talk

on Pharmacy as a career, arrangements would be made for that. Two requests had been received and both schools were in the same locality (Perthshire). It had been arranged that Mr. C. G. Drummond and the resident secretary should visit the schools on July 13.

THE VICE-PRESIDENT of the Pharmaceutical Society said that the brochure had been very well received at headquarters in London and he thought the idea of talks to schools was good.

Views on Health Centre

THE health centre at Sighthill, Edinburgh (see C. & D., May 30, p. 541) was praised and criticised at a meeting of Edinburgh Corporation health committee on May 16. Councillor G. H. Menzies described the centre as a "rather expensive experiment," and Councillor W. Moncur remarked that no one could honestly fail to see that the centre was a lavish extravagance from end to end. In defence of the centre, Councillor J. A. Crichton said that the job was well done and well thought out. "The country is spending millions of pounds on weapons and instruments for destroying life, and here we are begrudging £160,000 for encouraging and promoting life."

Polio Research Units

TWO pilot units for the investigation of the type of poliomyelitis in which artificial respiration is required to keep the patient alive are being set up in Belvedere and Ruchill hospitals, Glasgow. Also in Ruchill hospital a laboratory unit to study the virus of the disease will be established.

Glasgow Dispensers' Guild

AT a recent meeting in Glasgow of dispensers it was decided to form a branch of the Guild of Dispensers. The meeting was attended by about forty representatives of the craft in Glasgow and the West of Scotland.

IRISH NEWS

Marriage Presentation

TO mark his forthcoming marriage Mr. Fred J. R. Storey (a managing director of Fred Storey, Ltd., wholesale chemists and druggists, Belfast), was presented with an electric clock and cakestand by the employees of the firm recently. The presentation was handed over by Miss Hanna L. Morrow. Messrs. W. Lindsay, J. Maitland, A. P. Cathcart, C. Talbot and Mrs. Murphy together with Mr. Fred Storey (managing director) and Captain John W. Storey (director and secretary) also took part.

Appointment of Examiner

THE Registrar of the Pharmaceutical Society of Ireland has been instructed to advertise for applicants for the post of examiner in pharmacy to the Licence examination. An appointment is to be made soon.

Ulster Chemists' Association

THE next meeting of the Executive Committee of the Ulster Chemists' Association is to be held on September

8, and until then the Emergency Committee will deal with all urgent matters. The Association's office will be closed for the two statutory holidays in July.



LONG-SERVICE AWARD: Mr. A. E. Knight receives from Mr. H. Mason (chairman, Evans Medical Supplies (Ireland), Ltd.) a certificate in honour of his twenty-five years' service with the company (see *C. & D.*, June 13, p. 630).

NEWS IN BRIEF

Cheshire Weights and Measures Scheme.—Hyde, Stalybridge, and Glossop urban district councils are to set up a joint weights and measures administrative scheme. Hyde and Altrincham are asking for powers to administer the Foods and Drugs Acts themselves in lieu of the Cheshire County Council.

Leicester Tonic.—The 1953 edition of *Tonic*—the third number of volume five of the magazine of the School of Pharmacy, Leicester College of Technology, recently published—maintains the standard and mixture of fact, story, wit, verse and drawing, that its antecedents have established; The publication date in future years is to continue to be later than formerly.

Manufacturers' Agents' Association.—At the annual meeting of the manufacturers' Agents' Association of Great Britain and Ireland (Inc.) held in London recently, the following officers were re-elected:—*President*, Mr. J. Stanley Davies; *Treasurer*, Mr. T. Pickup; *Honorary secretary*, Mr. J. Barrie; and *Secretary*, Mr. Norman E. Carter, Rosebery House, 8 Bream's Buildings, London, E.C.4.

SPORT

Golf.—**ULSTER CHEMISTS' GOLFING ASSOCIATION**, at Clondeboy on June 10, the McMullan cup was won by C. Watt, Bangor, with H. McCafferty, Fortwilliam, runner-up. E. Allen, Hollywood, had the best gross, and bogey competition was won by B. Flatley, Royal Portrush, H. Marshall, Belvoir Park, second. Wholesale prizes were won by D. Moncrieff, Clondeboy and H. Carew, Clondeboy. — In the annual Apothecaries' cup meeting at Greenisland, the wholesalers beat the retailers by 4 matches to 2. The captains were R. Moore and J. Browne respectively.

EDINBURGH CHEMISTS' GOLF CLUB.—Coronation outing over Muirfield course: *Captain's prize*, D. Walker (10), 78. No. 1 section: A. Young (10), 78. No. 2 section: A. Dinwoodie (15), 83. No. 3 section: A. N. Fleming (20), 79. Best scratch score: W. S. Thomson 85.

Cricket.—**SCARBOROUGH v. BRADFORD PHARMACISTS**, annual match for Johnson & Johnson (Gt. Britain), Ltd., shield at Scarborough on June 14. Scarborough 170 for 5 (Lavcock 53; Elliott 58 not out). Bradford 38 all out (Swallowell 7 for 23; Milnes 3 for 7).

TOPICAL REFLECTIONS

By Xrayser

"The Art of Dispensing"

If dispensing ever becomes a lost art, then, but not till then, will your textbook on the subject, now in its twelfth edition, lose its value. As your readers cannot all be expected to remember the evolution of the book, I venture to outline it. Being the oldest of your practical handbooks, it has a special place in the list. Its beginnings go back to the *C. & D. Diaries* of 1880 and 1885. In each of those publications the help of such well-known pharmacists as A. W. Gerrard, Thomas Greenish, Joseph Ince, William Martindale and Barnard S. Proctor was enlisted. Mr. Peter MacEwan superintended the preparation of every edition from the first (1888) up to and including the ninth (1912). Owing to conditions during and immediately after the war of 1914-18, the ninth edition was reprinted with only such alterations as were dictated by major events—e.g., the issue of the 1914 British Pharmacopoeia. The tenth edition (1926) and the eleventh (1937) reflected changes in prescribing then taking place. Editorial comment on p. 655 of your issue of June 20 shows that such changes are continuing and are conditioning your policy in publication.

Business Questions

The new page of business questions and their answers (p. 669) shows a continuing demand for this useful feature. On perusing them, an elderly man of business may comment on one or another of the questions, "That's easy." But his neighbour in the next street may be of the opposite opinion. Much depends in these cases on two things, experience and reading. For instance, the procedure (not known to everyone) when a customer dies between the date of receiving a cheque and the date of banking it should be borne in mind in case it becomes necessary. One often sees Press advertisements announcing that demands made on the estate of deceased persons should be sent to a given address by a given date. I am not sure whether there is any statutory obligation to make such an announcement. Again, the extension of credit to a limited company exceeding its powers as set forth in the articles of association may land a creditor in an awkward position. It would, I suppose, be regarded as contrary to public policy to give credit in those circumstances. Your contributor's definition of a sinking fund shows that this is a reserve involving careful forecasting of probabilities; and his explanation of rises in bank charges throws light on a phenomenon that may well have been mysterious to most people.

Chemists to Royalty

My recent inquiry about the supply of medicines to William the Fourth has brought an interesting letter from Mr. G. E. Shaw, M.P.S., co-partner of J. Ingall & Son, dispensing chemists, 42 High Street, Ashford, Kent. Among the archives of this pharmacy there is a document, 7in. by 10½in., which reads: "I do hereby appoint Mr. Henry Peake Ramsey of Fore Street, Devonport to be My Chemist and Druggist extraordinary, and do give him full liberty to erect My Arms or Crest in token thereof. Bushey House the 3rd December 1827. William." The seal measures about an inch and a half in diameter. A connection of William, at that time Duke of Clarence, with Devonport may be inferred from the fact that in 1827 he held the revived title of Lord High Admiral. Mr. Ramsey was persuaded to remove to Ashford by a friend who was an engineer connected with the making of the railway through that town. On his death the business passed to Mr. Joseph Ingall, his assistant, who qualified as a chemist and druggist in 1868. He lived to the age of ninety-four, and was followed in the pharmacy by his son Mr. Sidney Herbert Ingall, Ph.C. After Mr. S. H. Ingall's death in 1932 the business was purchased by Mr. Shaw and two partners, one of whom was his wife, also a pharmacist. In Victorian times the labels of the establishment bore the words "Ingall late Ramsey, Chemist to the Queen"; and the Royal arms were displayed outside the shop until about thirty years ago.

COMPANY NEWS

BIOREX LABORATORIES, LTD.—Mr. Maurice Webb, M.P. has joined the board.

F. GUTKIND & CO., LTD.—Mr. F. A. Gutkind has been appointed a director with effect from June 10.

AYRTON, SAUNDERS & CO., LTD.—Mr. Alfred Chapman is to relinquish the chairmanship of the company and its associated companies on June 30 (see p. 681).

BOOTS PURE DRUG CO., LTD.—The annual report of the chairman (Lord Trent) accompanying the accounts for year ended March 31, states that retail stocks have been turned over more quickly than at any time during the past twenty years. Stocks have been reduced by £1,001,475 their total now standing at £12,844,529. Fifteen new shops were opened and six were closed during the year. National Health business has expanded and the amount owed to the company by the authorities exceeds £1 million. The major part of post-war factory development is now complete but certain warehouses are still to be enlarged and research facilities increased. Purchase tax totalling £6½ million has been paid during the year, the amount paid on stocks at March 31 was £1 million. The actual loss through the Budget is estimated at £175,000. (Accounts are as preliminary statement, see C. & D., May 16, p. 488.)

HOWARDS & SONS, LTD.—No dividend is recommended on ordinary capital for 1952 (against 15 per cent., less tax, for each of the three preceding years). A net loss of £34,099 is recorded for the year (against profit of £107,696 in 1951) after all charges including taxation, £10,416 (£115,527) and £10,033 (nil), for debenture interest. Expenses of new share issues, £16,341 and discount, £8,750 have been written off against the release of £80,927 set aside in previous years for taxation. The release arises mainly from the transfer of the company's activities to a new subsidiary (C. & D., March 21, p. 286) and has resulted, in spite of the loss, in a net increase of £2,026 in the carry-forward and general reserve. The directors explain that the adverse result is due to a sudden drop in demand and a sharp price fall in many of their raw materials and finished products which in turn necessitated a substantial writing down of stock values at the end of the year. With substantial economies in overhead expenses effected, the board hope that the company is now working at a profit.

New Companies

P.C. = Private Company; R.O. = Registered Office

SMITH & STARKEY, LTD. (P.C.).—Capital £1,500. To carry on the business of chemists and druggists, etc. Frank Smith, M.P.S., Patricia Smith, Frank R. Starkey, M.P.S., and (Mrs.) C. Starkey, directors. R.O.: 308 Waterloo Road, Blackpool.

CHARLES CALVERT (CHEMISTS), LTD. (P.C.).—Capital £3,000. To carry on the business of manufacturing, photographic and general chemists, etc. Edith A. Calvert, Margaret

Compton and Edith D. Bisatt, directors. R.O.: 11 Manor Park Parade, Lee, London, S.E.13.

PENLAN JONES CHEMISTS, LTD. (P.C.).—Capital £5,000. To acquire the business carried on by P. L. Jones, M.P.S., as Jones the Chemist, at 239 Farnham Road, Slough, Bucks; and to carry on the business of chemists and druggists, etc. Penlan L. Jones and Stella M. Jones, directors.

BOFORS (GT. BRITAIN), LTD. (P.C.).—Capital £20,000. To carry on the business of manufacturing and general chemists, etc. William H. Hicks and Arthur Clifton, 10 Lime Street, London, E.C.3, subscribers.

LAWRENCE ISAACS (CHEMISTS), LTD. (P.C.).—Capital £4,000. To carry on the business of analytical, manufacturing and general chemists, etc. Law-

rence Isaacs, M.P.S., Nathaniel Isaacs, Roland E. Osborne, directors. R.O.: Avon House, 356 Oxford Street, London, W.1.

AUDREY M. TOWNSEND, LTD. (P.C.).—Capital £100. To acquire the business of Harry B. Oliver hitherto carried on at 116 Weddington Road, Nuneaton, and to carry on the business of chemists and druggists, etc. Frederick Orton, P. M. Orton and A. M. Townsend, M.P.S., directors.

BUSINESS CHANGES

MR. E. H. OLIVER, M.P.S., has acquired the pharmacy of G. Morris & Son, Market Place, Wednesbury, Staffs, with effect from July 6.

BOOTS PURE DRUG CO., LTD., have purchased the pharmacy of C. R. Ling, Ltd., 2 St. Mary's Street, Bury, Suffolk. The shop was officially taken over on May 12.

THE WEEK IN PARLIAMENT

By a Member of the Press Gallery, House of Commons

MESSRS. A. HARGREAVES and S. S. AWBERRY asked the Minister of Health on June 18 how many nurses had become sensitive or allergic to penicillin and could not therefore continue nursing and what precautions were available. **MR. IAIN MACLEOD** (Minister of Health) said that the number of district nurses affected was not known. In seventy local health authority areas, seventy-three nurses had become sensitive and had had to give up nursing for varying periods.

Antibiotics to China

THE PRESIDENT OF THE BOARD OF TRADE was asked on June 18 by **DR. B. STROSS** to make a further statement on the export to China of antibiotic drugs, including the result of recent official conversations with other European countries which were supplying those drugs since British exporters were refused licences. **MR. P. THORNEYCROFT** (President of the Board of Trade) could not add to the answer he gave on April 30, "when I informed the House that those Western European Governments which had hitherto permitted the export of pharmaceuticals to China without restriction had now agreed to impose similar restrictions to ours." **DR. STROSS**: Does that mean, in effect, that we have lost the £2 million order which was offered to manufacturers in this country and that there is no further hope of securing any increase in the trade? **MR. THORNEYCROFT**: My answer means that we and other European countries are having controls similar to one another instead of different ones.

DR. STROSS then asked how much streptomycin had been exported to China since January 1, 1951, and whether in view of its value in the treatment of tuberculosis he would permit a substantial increase in the amount. **MR. THORNEYCROFT**: Exports of streptomycin are not separately recorded. We would be prepared to permit within the quota any reasonable increase in the supply of any drugs primarily required for civilians.

MR. S. T. SWINGLER then asked the President of the Board of Trade whether he would begin negotiations with representatives of the Chinese Government with a view to increasing trade between the U.K. and China as quickly as possible after a truce in Korea. **MR. THORNEYCROFT**: Our policy is to develop trade with China provided that this does not involve the supply of strategic goods. I do not, however, consider that any useful purpose would be served by initiating discussions in present circumstances with the Chinese Government. **MR. W. W. HAMILTON**: Does the Minister realise that some of our competitors in Europe are already well ahead of us in this field? Would he agree with the estimate made recently by a well known body on this question that Anglo-Chinese trade could be increased very quickly to the extent of about £100 million a year? **MR. THORNEYCROFT**: We are quite ready to seek to expand our trade with China in non-strategic goods. As to strategic goods, our position is that we are moving in close accord with other countries in Europe and with the U.S.

MR. SWINGLER asked if the Minister's attention had been drawn to the £10 million trade agreement signed between France and China relating to the exports of articles including machinery, drugs and other things which had been forbidden from this country? **MR. THORNEYCROFT** said he would certainly consider that. "We have worked very closely with other countries in Europe with the object of seeking to get as closely agreed lists of strategic goods as possible."

B.C.G. Vaccine

MR. A. BLENKINSOP asked the Minister of Health on June 18 to what extent he proposed to extend the use of B.C.G. vaccine, and under what conditions. **MISS M. P. HORNSBY-SMITH** replied that the Minister was about to consult representatives of local health authorities before he would be in a position to issue advice on the subject.

BIRTHS

ADAM.—At Torphins War Memorial Hospital, Ballater, Aberdeens, on June 13, to the wife of Benjamin Adam, M.P.S., Bridge Street, Ballater, Aberdeens, a son.

LAMB.—At 120 Braid Road, Edinburgh, 10, Midlothian, on May 16, to Ella, wife of Alexander McLaren Lamb, M.P.S., a son (James Scott).

MARRIAGE

NEATE - KEARNEY. — At St. George's Church, Wembley, Middlesex, on June 20, Leslie Henry Neate to Wilma Patricia Kearney, who is in charge of the Inquiry Department of THE CHEMIST AND DRUGGIST.

DEATHS

SINGER.—In an aircraft disaster near Sao Paulo, Brazil, on June 17,

Mr. Joseph Henry Singer, F.R.I.C. (senior production executive, Glaxo Laboratories Ltd., Greenford, Middlesex), aged thirty-nine. At the time of his death Mr. Singer was personal assistant to the deputy managing director (Mr. H. W.

Palmer). The tragedy occurred whilst Mr. Singer was en route to South America to advise Glaxo subsidiary companies in Brazil and Argentina on production problems. Mr. Singer was educated at the Queen Elizabeth Grammar School, Barnet, the Northern Polytechnic, London, N.7, and Chelsea Polytechnic, London, S.W.3. He was assistant analyst with The British Drug Houses, Ltd., for nine years and joined Messrs. Glaxo in August 1939 as assistant chief analyst. Mr. Singer was transferred to development work on pharmaceutical operations in the early days of penicillin production and later became a senior member of the company's production staff. During recent years Mr. Singer had travelled extensively in the company's interest. He spent some weeks in Italy when the Glaxo factory at Verona was opened in 1949. Two years later he visited the U.S.A. to represent the Association of British Chemical Manufacturers as a member of a productivity team on packaging. Later the same year he visited Glaxo companies in the Argentine, Uruguay and Brazil. In 1951 he went to India and Pakistan and in 1952 spent three months advising Glaxo companies in Australia and New Zealand on production problems. Mr. Singer is survived by his widow and three young children.

WARREN.—On June 17, suddenly following an operation, Mr. Pierce Harold Warren, M.P.S., 238 London Road, St. Albans, Herts, aged seventy-one. Mr. Warren was chairman and managing director of Shields & Warren,

Ltd., chemists, St. Albans. He was born in Derby and served his apprenticeship there. He joined his brother-in-law, Mr. R. H. Shields, M.P.S. in business in St. Albans before the 1914-18 war and subsequently took over the business on the retirement of the latter. Later he opened branch shops. Mr. Warren was also a director of H. Elderkin Wood, Ltd., chemists, Watford. He was a past chairman of the Hertfordshire Pharmaceutical Committee; a founder member, past-president and former secretary, St. Albans Rotary Club; a member, St. Albans Old Folks' welfare committee; a trustee, Glenalmond Old Folks' home; a director, St. Albans Building Society; and a past master, Halsey lodge of Freemasons. He is survived by his widow, three sons and a daughter.

WHATMOUGH.—(See C. & D., June 20, p. 657). *Mr. A. Flood writes.*—I was a student at Muter's in Mr. Whatmough's time in 1904. I fear he took a somewhat dim view of my scientific attainments, and I remember when I returned to the school from Galen Place after my examination and announced to him that I had passed, he smiled in sympathy and asked me what I had failed in! When I assured him indignantly that I was indeed a qualified chemist, he quickly recovered from his astonishment and congratulated me handsomely. Rightly or wrongly, I attribute his white hair to the shock which I gave him on that day. In my time his hair was profuse but very dark. As he had been a Muter's man himself he was always genial and approachable to the students and it was obvious that with his features portraying brilliant intelligence he was going much farther in the technical and scientific world.

Mr. Arthur Mortimer writes. — My sympathy goes out to you on the death of our mutual friend Wilf Whatmough. He and I were born in the same small Yorkshire town, within a few yards of each other about the same time. He went to Mackay's of Bradford. I went to Henry Dunn of Shipley. We both went to evening classes together. When I came to London I often saw him and helped him with his book on chemists' windows (over thirty of mine were incorporated). In recent years I lost sight of him—it was my loss and my fault. He was a brilliant and lovable man. I am sure all who knew him will feel this as a sad personal loss.

PERSONALITIES

MR. EDWARD TRANMER, M.P.S., Smethwick, Staffs, has been elected president of the Smethwick Rotary club.

MR. FRED MARSHALL MEDHURST, M.B.E. (managing director, T. J. Smith & Nephew, Ltd., Hull), recently returned to Britain after a four-month market survey of Australia, New Zealand, Ceylon and India.

MR. F. LEWIS WATSON, M.P.S., who has been appointed to the board of Unichem, Ltd. (see C. & D., June 6, p. 558), joined that company in 1946 as representative. He was later appointed

organising secretary, and more recently, sales manager.

SIR ERIC RIDEAL, M.B.E., D.Sc., F.R.S. (professor of physical chemistry, King's College, London), has been appointed chairman of the advisory council to the Minister of Supply on scientific research and technical development in succession to Sir John Lennard-Jones, K.B.E., Sc.D., F.R.S.

MR. LAWRENCE H. C. HUANG, a director and secretary of Vangarde, Ltd., 83 Cross Street, Kuala Lumpur, Malaya, called at the offices of THE CHEMIST AND DRUGGIST recently, while on a visit to Britain. His pharmaceutical business is a retail and wholesale organisation and by coincidence opened with the introduction of a new poisons ordinance in Malaya on September 1, 1952. The wholesale part caters for the whole of the Federation of Malaya. Messrs. Vangarde's shop is the only Chinese chemist and druggist establishment in Kuala Lumpur. Mr. Huang is interested in hearing from British pharmaceutical houses who may wish to export their products to Malaya.

MR. H. E. SAUNDERS, M.P.S., Tankerton, Kent, has been awarded the Coronation Medal, military class, for his services to the Civil Defence organisation of which he was an active member during the whole of the 1939-45 war (in the latter years a gas identification officer). After the re-establishment of the Civil Defence Corps Mr. Saunders again took an active part in local organisation as a general instructor, and has since taken courses at the Home Office training school at Fulfield, and at King's College, London, as a technical reconnaissance officer. Mr. Saunders is a past secretary of the East Kent Branch of the Pharmaceutical Society.

MR. ALFRED CHAPMAN, who is retiring from the chairmanship of Ayrton, Saunders & Co., Ltd., Liverpool (see p. 680), joined the company in 1922 and was elected to the board of directors two years later. Mr. Chapman has been a member of the executive council of the Proprietary Articles Trade Association for many years. He is also a member of the Council of the Chemists Federation and chairman of its propaganda committee, which appointment he has been asked to retain until the 1953 programme is accomplished. Mr. Chapman is the president of the Liverpool Trade Protection Society, a past-president of the Liverpool Philomatic Society, and a former secretary of the Liverpool Athenæum. He is a member of the Rotary Club of Liverpool and has served on the headquarters committee of Rotary as well as being chairman of the community service committee for No. 18 Rotary district.



LEGAL REPORTS

Altered Prescription.—A Featherstone, Staffs, woman, Mrs. Doris May Beardsmore, who admitted altering a doctor's prescription to obtain sixty-two instead of twelve sodium Amytal capsules through the National Health Service, was granted a conditional discharge at Staffordshire Quarter Sessions on June 9. The prosecution said that Mrs. Beardsmore went to her doctor to get a prescription for nervous debility. She had been having the capsules for twelve months at the rate of three a day. The doctor, wishing to break the habit, gave her a prescription for only twelve capsules and when she got home she altered it to sixty-two. The alteration was noticed when she handed the prescription in to a chemist.

Acquitted on Fraud Charges.—Accused of acting together in defrauding the National Health Service of £30 6s. 7½d. in fees for medicinal or medical supplies, two chemists and a doctor, Messrs. Matthew Lawrie, pharmacist, 19 Grosvenor Place, Leeds; John J. G. Watt, pharmacist, 109 Gartshire Road, Coatbridge; and Dr. Thomas Bowden, 70 Muirhall Street, Coatbridge, appeared at Airdrie Sheriff Court on June 17. After evidence had been taken the hearing ended the following day when the fiscal asked leave of the judge to abandon the case stating "I cannot see that I can conscientiously convince your Lordship to hold that the Crown has made out the case it set out to prove." Sheriff A. J. Stevenson immediately found the three accused not guilty and acquitted them.

Doctor Procures Drugs.—At Northampton Borough Magistrates' Court on June 17, Thomas Bertram Whitehead, medical practitioner, West House, Moulton, Northants, pleaded guilty to six charges of procuring dangerous drugs for himself and to six charges of failing to keep a register of the drugs obtained. Prosecuting solicitor alleged that defendant, between April 11 and May 8 bought a total of 225 quarter-grain tablets of morphine sulphate on six different occasions. Sometimes he bought the drug from the Kingsley Park Terrace, Northampton, branch of Philadelphus Jeyes, Ltd., and on another occasion from the branch of Boots, Ltd., Kettering Road, and each order was marked "For use in practice." The solicitor stated that Whitehead subsequently admitted taking morphia. A total fine of £120 was imposed.

Committed for Trial.—At Manchester, on June 19, Mr. Thomas Ridyard Aspinall, pharmacist, 154 Great Jackson Street, Hulme, Manchester, was accused of twelve cases of forging prescriptions and eleven cases of obtaining money from the National Health Service to which he was not entitled. Among twenty witnesses called were four doctors who said they wrote prescriptions which, they alleged, had been altered later. The offences took place in 1951 and 1952. In some instances 10 fl. oz. of medicine had been altered to 20 fl. oz. by the addition of an "x" by Mr. Aspinall on the prescrip-

tion forms. Mr. S. Smith, defending, said the total excess payment relating to the summons was 6s. 11d. A Health Service officer said that for the year 1951-52, Mr. Aspinall was paid £2,285 for prescriptions. One summons alleging forgery and one alleging that Mr. Aspinall wrongfully obtained money were withdrawn. Mr. Aspinall was committed for trial. He was allowed bail.

Dangerous Chemicals in Sewer.—A fine of £5 and three guineas costs was imposed on the British Drug Houses, Ltd., Graham Street, Islington, London, at Old Street, London, magistrates court on June 17, for causing chemical refuse to enter a sewer thereby involving danger to persons entering the sewer. The solicitor for the London County Council said that a chemist of the County Council, and two sewermen entered the sewer on March 27 to take samples at the junction of the drain leading from the defendants' premises into the sewer. The samples revealed the presence of monochlorobenzene and carbon tetrachloride both of which were "narcotic and toxic." One of the sewermen was rendered unconscious by the gas. Defending counsel said the company had taken the matter seriously and outlined steps taken by the company to overcome the problem. A system of filtering and settling tanks was also in the drawing board stage. The magistrate accepted that there had been no wilful desire to commit the offence.

Preparation not on Prescription.—At the Leominster, Herefords, borough magistrates' court on June 18, three charges were preferred on behalf of the Pharmaceutical Society against Mr. William Sidney Rees, 21 High Street,

Leominster, a member of the Society. The charges were that defendant unlawfully sold barbituric acid derivatives not in accordance with a prescription given by a medical practitioner, registered dentist or veterinary surgeon, as required by rule 12 (1) of the Poison Rules, 1952, and contrary to the Pharmacy and Poisons Act 1933. Mr. Rees pleaded guilty to the three charges. Prosecuting on behalf of the Society, Mr. A. C. CASTLE assured the Court that the Society had instituted the proceedings reluctantly. The charges should cast no reflection on the skill and knowledge of Mr. Rees as a chemist in Leominster, or on his integrity. Defendant had no wrong intention, Mr. Castle said, and his only explanation was that he completely forgot. Mr. P. A. B. ELKIN for the defendant, said that if his client had intended to evade the law, he would not have put the items in his prescription book because he knew the inspector was about to call. MR. CASTLE said that on March 24, Mr. McClosky, an inspector appointed under the Act, made his normal routine examination of the poison register and prescription book and noted a number of sales of these drugs. He drew Mr. Rees's attention to the fact that they were not supported by prescriptions. Mr. Rees was very upset and said he overlooked obtaining the prescriptions, and he undertook to discontinue the practice. The chairman of the Bench said the magistrates would like to say that they had never heard a case put before them more fairly than that one had been presented by the solicitor for the prosecution. They were going to deal leniently because they thought that the explanation given was a right one—that defendant did not give it a thought—they would fine him £5 on each charge with an advocate's fee of £5 5s.

AIDS TO BUSINESS EFFICIENCY

Time-saving Appliances on Exhibition

THE Business Efficiency Exhibition organised by the Office Appliance and Business Equipment Trades Association was held in London, June 16-21. A wide range of accounting machines, typewriters, office furniture, stationery, etc., was on show. The Autobill cash drawer one of the exhibits shown and manufactured by AUTOMATICKET, LTD., London, is surmounted by a small machine containing a supply of receipt forms. When a sale is made the assistant writes the particulars on a form which is displayed in a frame and on depressing a lever the drawer opens, the receipt is issued, a duplicate is stored in a locked receptacle and a new blank form is displayed. A range of machines for printing labels on separate blanks or on blanks forming a continuous roll were shown by DAPAG, LTD., London. A grooved cylinder carries the type which may be set by the user. The machines are useful for batch and date labelling.

Cash Registers

G. H. GLEDHILL & SON, LTD., Halifax, showed cash registers and on the same stand GLEDHILL-BROOK TIME RECORDERS, LTD., Halifax, showed time-recorders for staff or works use.

A cheque-writing machine, the Protectograph, shown by HALSBY & CO., LTD., London, W.1, makes cheques forgery-proof. The paper is impregnated with acid-proof ink—not merely surface printed.

A new method for the speedy production of price and other lists at low cost was shown by REMINGTON RAND, LTD., London, W.C.1. Copy is typed on Flexoprint cards which are proof-read only once and attached to panels. When attached the cards overlap so that only the lines of writing show and the whole, from above, has the appearance of a list of items. That is then reproduced by offset lithography. The originals can easily be amended when that becomes necessary and new printing material made.

SUMLOCK, LTD., London, W.1, demonstrated the Certopost system of accounting that detects the commission of the following errors: entry of wrong amount; posting amount to wrong account; posting on wrong side of the ledger; incorrect balancing of an account. The system is based on the use of a special low-priced accounting machine and a method of coding amounts of money as two digit numbers.

MEDICINE UNDER THREE QUEENS

Wellcome Historical Medical Museum Exhibition

AN exhibition illustrating "Medicine Under Three Queens: Elizabeth I, Anne and Victoria" was opened at the Wellcome Historical Medical Museum, 28 Portman Square, London, W.1, recently.

In the section of the exhibition devoted to the Elizabethan Age, a case entitled "Botanist, Apothecary and Chemist 1558-1603" contains an alchemical manuscript of the 16th century showing the processes for the production of the philosopher's stone in pictorial cryptograms. The first section of the manuscript shows the alchemist holding an alembic still of which an early example in green glass is included in the case. Other items in the same case include several 16th and 17th century bell metal mortars, and glass phials—probably 16th century—excavated in parts of London including Crosby Hall, Union Street, Southwark, Green Street and Trafalgar Square. A digesting furnace is shown and is stated to be probably German, 16th or 17th century, and made of red stoneware covered with glaze.

It is noted that it was in the reign of Queen Elizabeth that pottery of the type known as delftware began to be manufactured in England, and that by the beginning of the 17th century that type of pottery was being produced in Southwark and Lambeth. A little later the potteries were concentrated in Lambeth which became famous for its products. Examples of delft ointment pots dated about 1600 are shown.

An iron bound oak drug or spice cabinet that still retains in working order its original lock and key has a coat of arms showing the unicorn and the eagle on the front of the door.

Mithridate and Theriac

A small panel in the back of the case is devoted to mithridate and theriac and includes a small book entitled *A Discourse of the Medicine Called Mithridatum*, 1585, which claims that English mithridate and theriac was of very high quality, a fact that had been commented upon by visitors from abroad in conversation with Her Majesty's Apothecary, Hugh Morgan. A pewter canister containing theriac inscribed "Teriaca fina alla testa d'oro in Venet (is)" dated 1603 is shown.

In the Middle Ages assay cups were used to detect poison in wine or other drinks and they were made of rhinoceros horn (supposed horn of the Unicorn). An example (c. 1570) with a silver lip engraved with a band of scrolls and azure foliated ornament, a bishop's mitre and the initials "T.T." is exhibited.

"Science in the Age of Anne, 1702-14" is indicated by examples of early microscopes, some with fine adjustment screws, and one early eighteenth century model in which provision is made for the illumination of the object by a plane mirror.

It is noted in another case that Anne revived the practice of healing by touch and a loadstone believed to have been used by Queen Anne in performing the ceremony is exhibited.

In the 1702-14 period, separate cases deal with Physicians, Apothecaries and Surgeons. The Apothecaries' case includes many examples of delftware including a polychrome pill slab of Lambeth delft and bearing the coat of arms of the Society of Apothecaries. A copy of Sir Samuel Garth's *The Dispensary*, London, 1709, is shown. Written in defence of the dispensary opened by the Royal College of Physicians for the benefit of the poor, it is said to have enraged the apothecaries. The copy is open at Garth's satire of the apothecaries' complaint against the physicians:—



Part of a case entitled "Botanist, Apothecary and Chemist 1558-1603" at the exhibition showing an alchemical manuscript, a glass alembic still, bell metal mortars, and glass phials, probably 16th century and excavated in London.

"Our Manufacture now they meanly sell,
And spitefully th' intrinsic value tell."

The part of the exhibition that deals with the reign of Queen Victoria emphasises the changing methods of treatment that came about in the 19th century. Blood transfusion apparatus, hypodermic syringes, including screw action types as used by Pravaz in the middle of the century, are shown. Other items include a leech cage for the removal of the leech from the jar and a type of "mechanical leech" which provides for the puncture of the skin and subsequent withdrawal of the blood by means of a glass cylinder and piston. It is pointed out that although clinical thermometers were invented early in the 17th century, they did not come into use as an aid in diagnosis until after the middle of the 19th century. Several examples are on view. The introduction of surgical anaesthesia and the development of Public Health are fully dealt with.

The exhibition will remain open for several months.

TRADE NOTES

Summer Bonus.—Details of a summer display bonus for Dispel are given on another page by Advance Industries Ltd., 87 Regent Street, London, W.1.

Pharmaceutical Boxes.—Details of a range of pharmaceutical boxes and drums are given by Robinson & Sons, Ltd., Wheat Bridge Mills, Chesterfield, elsewhere in this issue.

Hormone Supplies.—A list of official and other hormones available from Organon Laboratories, Ltd., Brettenham House, Lancaster Place, London, W.C.2, is given on another page.

Exempt from Tax.—Multipax Chemicals Ltd., 32 Shaftesbury Avenue, London, W.1., announce that all sizes of Aluhyde are now exempt from purchase tax.

Products Discontinued.—Glaxo Laboratories, Ltd., Greenford, Middlesex, announce that, with effect from June 30, the company's products Flavogel and Ostomalt will be discontinued.

For Adults and Children.—Beautisales, Ltd., 35 Old Bond Street, London, W.1, point out that Gill's dandruff remover shampoo is suitable for children as well as adults. Display material supplied is available.

Simplified Accounts System.—'Created for chemists by chemists,' the Shanno'caf is a compact book holding hundreds of visible records (prices, discounts, dates, order numbers, etc.). The makers are The Shannon, Ltd., New Malden, Surrey.

Relief for Sunburn.—Osborne, Bauer & Cheeseman, Ltd., for whom agents are Sangers Ltd., 258 Euston Road, London, N.W.1, suggest the use of Glymiel jelly for the relief of skin irritations caused by over-exposure to hot sun and strong sea breezes.

Foods to be Discontinued.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, announce their intention to dis-

continue the manufacture of the Allenburys infant foods Nos. 1, 2 and 3 from December 31. All non-date-expired stock held by the trade on that date will be credited in full if returned. Allenburys Diet will continue to be produced and will be freely available.

Brush and Sponge Agency Wanted.—The Commercial Relations and Exports Department of the Board of Trade, Horse Guards Avenue, London, S.W.1, announces that Mr. J. C. Schilleman, Schenkade 18, The Hague, Holland, is anxious to undertake the representation in Holland of United Kingdom manufacturers of babies' packaged hair brushes and sponges.

NEW PRODUCTS AND PACKS

Bulk Chloramphenicol.—Pure Chloromycetin (chloramphenicol) is now available from Parke, Davis & Co., Ltd., Staines Road, Hounslow, Middlesex, in bottle of 100 gm.

Tax-free Packs.—Thornton & Ross, Ltd., Linthwaite, Huddersfield, announce that their chloroxylenol disinfectant Peractum is now exempt from purchase tax. It will be issued in bottle of 4 fl. oz.

Balm.—The introduction of a balm for the relief of rheumatism, fibrositis and muscular pains, under the name Fibrosine, has been announced by the International Chemical Co., Ltd., Chenies Street, London, W.1. It is packed in a collapsible tube enclosed in a red and powder-blue carton.

Hot Water Bottle Range.—A new hot water bottle, the Dunlop Renown, has been added to Dunlop range of hot water bottles made by Dunlop Rubber Co., Ltd., St. James House, St. James Street, London, S.W.1. In pastel blue it has a larger capacity, a wide filling funnel, and an introvert hanger.

Organic Nitrate.—Bayer Products, Ltd., Africa House, Kingsway, London,

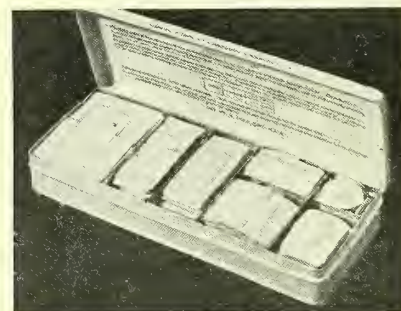
United Kingdom firms interested should communicate direct but are asked to notify the Department.

Chamomile Active Component.—Dragoco (Gerberding & Co.), Holzminden, Germany, offer under the name azulene a preparation of the active component of chamomile (*Matricaria chamomilla*). Azulene, which is offered to manufacturers of tooth-pastes, mouth-washes and other cosmetic and pharmaceutical preparations, is manufactured by Messrs. Gerberding in two grades: pure, and 50 per cent. in liquid paraffin solution, both in bottles of 4 oz. and 1 lb. The agents in Britain are Bruce, Starke & Co., Ltd., 5 Fenchurch Street, London, E.C.3.

W.C.2, announce a new product, Mycardol, chemically, pentaerythritol tetranitrate. It is intended for the symptomatic treatment of angina pectoris, and has a slower and more prolonged action than that of glyceryl trinitrate.

Growth Factor.—Benefax, a preparation in tablet form containing a growth factor is offered by Benefax, Ltd., 10 Sackville Street, London, W.1. The distributors are Tampax, Ltd., 110 Jermyn Street, London, S.W.1. The tablets are packed in a tube containing a fortnight's supply. They are flavoured.

Surgery Cabinet.—Dalmas, Ltd., Junior Street, Leicester, are offering the surgery cabinet illustrated. It con-



tains 114 dressings in five assorted sizes and is designed for use in factory sick and first-aid quarters. It is also suitable for inclusion in the first-aid kit of St. John Ambulance or Red Cross workers, or for domestic use.

Powerful Antihistaminic.—Actidil (trans-1-(4-methylphenyl)-1-(2'-pyridyl)-3-pyrrolidinoprop-1-ene hydrochloride) stated to be one of the most potent antihistaminics yet discovered, is now available from Burroughs Wellcome & Co., 183 Euston Road, London, N.W.1. In comparison with Histantin brand chlorcyclizine hydrochloride, it has a more rapid but less prolonged action. Actidil is effective for about twelve hours; Histantin throughout the whole day. The action of the two products are complementary. Actidil is available in scored compressed tablets, each containing 2.5 mgm. in bottles of twenty-five and 500.



WEST END SHOWROOM: A view of the showroom of Halex, Ltd., at 9 Conduit Street, London, W.1, showing displays devoted to toilet articles (see C. & D., 1952, II, 668).

PHARMACY AT A TURNING POINT?

Address to Scottish Pharmacists' Annual Meeting

AT the annual meeting of members of the Pharmaceutical Society in Scotland on May 27 (see p. 678), MR. C. G. DRUMMOND gave an address on "The Changing Face of Pharmacy." The following are extracts from the address:—

Thirty Years Ago

Pharmacists who qualified about twenty-five to thirty years ago, represent the last generation of a long line of druggists and apothecaries. Until fairly recently, many of the drugs in common use, and their method of presentation, varied less than one might imagine over a period of 200 years. In the 1730's the druggists of Edinburgh were handling calomel, rhubarb, gentian, ammonium carbonate, aloes, soap, ipecacuanha, opium, camphor, olive oil, senna and jalap, to name only some of the materials in daily use. Any one of these might have been met with constantly thirty years ago, prescribed, as in that early period, in the form of pills, powders, liniments, decoctions, infusions or tinctures. But almost imperceptibly, change was taking place even in the 18th century. The physicians in 1730 were growing their own plants in the medicine gardens and a system of inspection of the druggists' shops and drugs was already in being. Pharmacy has made its own contribution to the science of healing and to the treatment of disease. The chemists, many of them pharmacists, who possessed the inquiring scientific mind, such as Duncan and Macfarlan in Edinburgh, wrought great changes. With the advent of the scientific approach, it was inevitable that the manufacturing and wholesale druggist should come into being, and that the laboratory should play an increasing part in providing standards which were impossible in the days of empiricism. So, over the past 150 years there has been a gradual shift in emphasis. It became no longer necessary to visit the medicine gardens to gather fresh plants. No longer was it necessary to judge the effect of ipecacuanha according to its colour. No longer was opium a crude drug which might or might not produce the desired effect. By patient and painstaking research, methods of standardisation were evolved, and the alkaloids and active principles isolated.

But the change was not fundamental. I do not think it would be wrong to assert that the apothecary of 1725 could have returned to the scene of his labours 200 years later, with less affront to the senses than has taken place between 1925 and today.

Ehrlich's Experiments

When, early in the 20th century, Ehrlich carried out experiments in chemotherapy, it could scarcely have been foreseen that the whole structure of medicine and pharmacy was so soon to be completely revolutionised.

The Pharmaceutical Society has, in the past two decades had to face the

challenge of this rapidly changing situation, not rendered any easier by the interposition of a world war, or by the advent of a National Health Service. It has the statutory responsibility of satisfying the needs of the nation in regard to the supply of pharmacists, and the system of training and examination must be such as to ensure the production of thoroughly competent men and women who are qualified to cope with these changing conditions. Thus we find the curriculum and the syllabus being shaped and adapted to meet the evolution and revolution of modern medical science.

The apprenticeship, as it used to be, no longer exists. The basic training and the scientific knowledge, along with a certain facility, are now acquired during a three-year academic course. The system makes it possible to turn out a highly qualified pharmacist who must now seek a field in which to add the finish of a practical training of only one year with a practising pharmacist.

Statutory Responsibilities

The statutory responsibilities of the pharmacist remain unchanged. He is the nation's safeguard and adviser in the distributing of poisons. But the position of the laboratory becomes more and more dominant. Fewer extemporaneously prepared medicines are being prescribed. The pharmaceutical establishment of today is steadily becoming less a centre of skilled manipulation and more a centre of skilled distribution of preparations manufactured in the laboratory. The accurate interpretation of the physician's intentions remains, despite the changes, as an onerous and responsible duty, capable of discharge only by a person of high qualification and experience.

Does the Pharmaceutical Society envisage the new pharmacists of Ph.C. standard as the successors to the old Chemist and Druggist? Might it be that the new pharmacist, with his scientific training, will look askance at the type of business his predecessor has been forced to follow for economic and other reasons?

The professional outlook of the Society, with its praiseworthy object of raising the professional status of the pharmacist, may be productive of repercussions on the shape of things to come which were not contemplated. Or were they?

The report of the Committee of Enquiry of the Society, published in 1941 said:—"Only under public service conditions can the potentialities of pharmacy be fully realised." It may well be that the first step in this direction has been taken in Edinburgh with the opening of the Sighthill Health Centre (C. & D., May 30, p. 541), an experiment which may ultimately alter the shape of pharmacy for all time. It must be pointed out, though, that only part of this concept is of the nature of public health service. The pharmacist becomes a public servant, but the doc-

tors remain as contractors who merely make use of the facilities offered by the Centre. "Integration" as visualised by the Committee of Enquiry, is not yet realised.

For many years to come, the service to the public will change only gradually. It may be that time will see the growth of a form of private group pharmaceutical practice, from fewer centres of distribution than we have at present, in which professional and economic satisfaction are attainable on a much more professional level than has hitherto been possible.

Future Developments

Future developments of medical science in the treatment of disease may be such as to render a fully-equipped laboratory an essential part of the practice of pharmacy. As the process of manufacture in the old druggist or apothecary's shop gave place to the small manufacturing house, and, through the years, with the increase of scientific knowledge and research, to the modern laboratory, so time may prove that the pharmacy, as we know it is even now on the way out.

Whatever the outcome, the vital point is that wherever pharmaceutical service is required, there must be a pharmacist, equipped at all points, to carry on his specialised calling, and to make the contribution he alone can.

Discussion

MR. C. W. MAPLETHORPE (chairman of the Education Committee of the Society's Council) said that he liked Mr. Drummond's concept of some sort of group pharmacy practised in the public interest, and it might be one of the methods of practising pharmacy in the future.

MR. C. W. MACFARLANE, Dundee, asked Mr. Drummond if he thought the student was better to take his apprenticeship after training or before training.

MR. DRUMMOND said that so long as the pharmacist was going to work under the conditions at present, some part of his practical training ought to be taken while he was being moulded, but the educational policy of the Society was leading away from the shop.

MR. F. HEPBURN, Edinburgh, said he was very interested in Mr. Drummond's remarks about pharmaceutical group practice. For many years the concept of the pharmacy had been that of a shop, and probably in the 1,700 shops in Scotland there were very few pharmacists that had the ideal type of pharmacy. The dispensing department was moulded to the space available. The pharmacist might feel he would like a laboratory but there was no space for it. Shops were chosen for their advantageous position, not for space. For a pharmaceutical group practice, premises would have to be taken with an ultimate object and an ultimate ideal in mind.

IRISH HEALTH BILL DEBATED

Senator Takes Part

UNDER the auspices of the Chemists' Debating Society a lively debate on the Eire Health Bill was held recently at the Assembly Hall of the Pharmaceutical Society of Ireland, Dublin. Mr. P. S. O'Brien (auditor of the Society) presided and the principal speakers were Messrs. Michael Costello (vice-president of the Pharmaceutical Society), T. J. O'Connell (surgeon, speaking for the Irish Medical Association), and Senator Noel Hartnett, B.L. A letter was read from Dr. J. Ryan, Minister for Health, regretting that Dail business made it impossible for him to attend. At the outset of the proceedings a vote of sympathy was passed with the relatives of the late Mr. Sylvester O'Farrell (C. & D., May 30, p. 537).

History of Health Services

MR. NOEL CROSSAN (a member of the Debating Society) opened the debate with a paper on "The History of Health Services in Ireland." He traced the progress of health legislation in Eire from the Poor Relief Acts of 1765 to the present. The purpose of the 1765 Acts, Mr. Crossan said, was mainly to prevent the spreading of disease, not so much for the relief of the persons afflicted, but as a protection for the "gentry." The first local health authorities, known as Boards of Health, were established in 1818. Although their problem—the health of a nation—was immense, their implements were crude and their powers limited. Under the Local Government (Ireland) Act, 1898, Boards of Guardians were given complete management of the dispensaries and certain infirmaries and fever hospitals. The Local Government Act, 1925, provided for the appointment of county medical officers of health—a big step forward. Voluntary hospitals had done much for suffering humanity. Some were founded by Royal Charter; some established by Act of Parliament; some were run by religious organisations and some by lay persons who devoted their lives to the care of the sick. All deserved the respect and appreciation of the people.

MR. COSTELLO, speaking to the paper said the tendency today was more towards developing social services, in the forefront of which were health services. This development had been seen in New Zealand, Australia, and then in Britain. Pharmacists took a deep interest in health services the progress of which they had been watching closely since the Health Act of 1947 was passed. In the present Health Bill before the Legislature, Pharmacy—whether fortunately or unfortunately—was not specifically mentioned. Pharmacists had not been able to see anything in the Bill, so far, harmful to the profession, but they would continue to watch closely the regulations to be made under it when the Bill became law.

SENATOR HARTNETT, who pointed out that the views he expressed were his own, said he had not been able to find one rational argument put forward by

the Irish Medical Association against the Health Acts of 1947 or 1952. Although there was a free tuberculosis service, with no means test, the Medical Association had not protested against it.

MR. O'CONNELL said the paper read showed how slow the State was to do anything about health services. The present Health Bill, he claimed, did not give any of the things to the middle classes that had been talked about for the past twenty years. There was no ordinary general practitioner service for those people. The Public Assistance mother could have a choice of hospital for maternity, but she must have a State doctor. The medical profession were fighting the Bill because they felt it would destroy the voluntary hospitals. Under the Bill as introduced a lay-man would be running medical schools.

DR. F. MCKENNA, Ph.C., Dun Laoghaire, said State medicine was coming in insidiously since 1875, and they might one day reach the stage where all medicines and drugs would be distributed through clinics, and the pharmacist would be left to deal in cosmetics.

DR. SHEEHAN said he came there prepared to support the present Health Bill, but he heard no reasons from Senator Hartnett to convince him to do so.

MR. J. A. O'ROURKE said to evolve any satisfactory health service a conference between representatives of the State and medical, pharmaceutical and nursing should be arranged.

DR. FLEETWOOD said voluntary medical insurance schemes were flourishing in England to give benefits which State medicine failed to give.

MR. P. J. LEYDON said he objected to the Health Bill because chemists were not mentioned in it.

SENATOR HARTNETT, replying to the debate, said that the Bill did not give the middle classes as much as he would like. He would be in favour of a Bill like the British Act adapted to Eire. He was all for a conference between the professions and the politicians, as suggested by Mr. O'Rourke, provided no one profession said "here is what we want and we must get it."

A vote of thanks to the chairman and platform speakers was passed on the motion of MR. C. J. CREMEN, seconded by DR. SHEEHAN.

EXCURSION TO MOURNE MOUNTAINS

Chemists' and Druggists' Society Annual Outing

THE Chemists' and Druggists' Society of Ireland held their recent annual excursion visiting the Silent Valley water works in the Mourne Mountains, co. Down. Afternoon tea was served at Newcastle, co. Down.

After tea, MR. FRED STOREY (president) welcomed the guests, among whom were Mr. Gordon Rattie (president, Ulster Chemists' Association), Miss E. A. Strachan (secretary, U.C.A.), Mr. H. F. Moore (a member of the Council of the Pharmaceutical Society of Northern Ireland), and said they were all sorry that Mr. W. H. Boyd (president of the Pharmaceutical Society of Northern Ireland) was unable to be present. They were delighted to see Mr. Gamble's name in the Queen's Honours List and to see that pharmacy had been recognised. Some of the members who were present would remember their visit to the Silent Valley thirty years ago. Mr. Rattie was doing a good job in the U.C.A. and he himself had the pleasure of working with him on the committee of that splendid organisation, the Chemists Federation, a body of which he himself was an enthusiastic supporter. MR. RATTIE, replying, thanked Mr. Storey for his hospitality and said it was the second occasion he had been with them, and appreciated his reference to the U.C.A. and C.F. committees. MR. MOORE and MISS STRACHAN also replied. On the motion of MR. W. DOIG, seconded by MR. J. IRWIN, a vote of thanks was passed to Mr. H. McQuitty (secretary) for making the function such a success. Mr. McQuitty then replied and on the motion of MR.

F. BOYLE, seconded by MR. McDOWELL, a vote of thanks and good wishes was passed to the new treasurer (Mr. D. McBride) who replied.

BRAZIL'S IMPORTS

Monthly List to be Published

A NEW system for licensing imports into Brazil is to be introduced from July 1, for the second half of 1953. The Export-Import Department of Brazil will publish weekly lists of groups of merchandise, for which applications for licences to import six-monthly supplies will be received during the ensuing thirty days. Applicants must declare the name of the country from which they prefer to import and mention three alternative sources. If exchange cover is not available for the first choice they will be informed at once for which country the licence may be issued. On repeating their application accordingly it will be automatically granted.

The Department claims that the system will limit imports to exchange availabilities and that applications will in future be decided within a maximum of sixty days from the date of presentation.

Applications to import the following pharmaceutical and similar products may be presented during the periods stated:

GROUP 1, July 1-30: Medicinal roots and bulbs; elder, myrtle and juniper berries; alkaloids of the opium group; quinine; other alkaloids; serums, vaccines and other bacterial preparations; sulphonamides and antibiotics, their by-products and preparations; hormones

and organotherapeutical substances; medicines; surgical dressings; orthopaedic apparatus; plants, seeds, flowers and parts thereof for medicine and perfumery; glucose.

GROUP 2, July 8-August 6: Tragacanth gum; gum-arabic; malt.

GROUP 7, August 12-September 10:

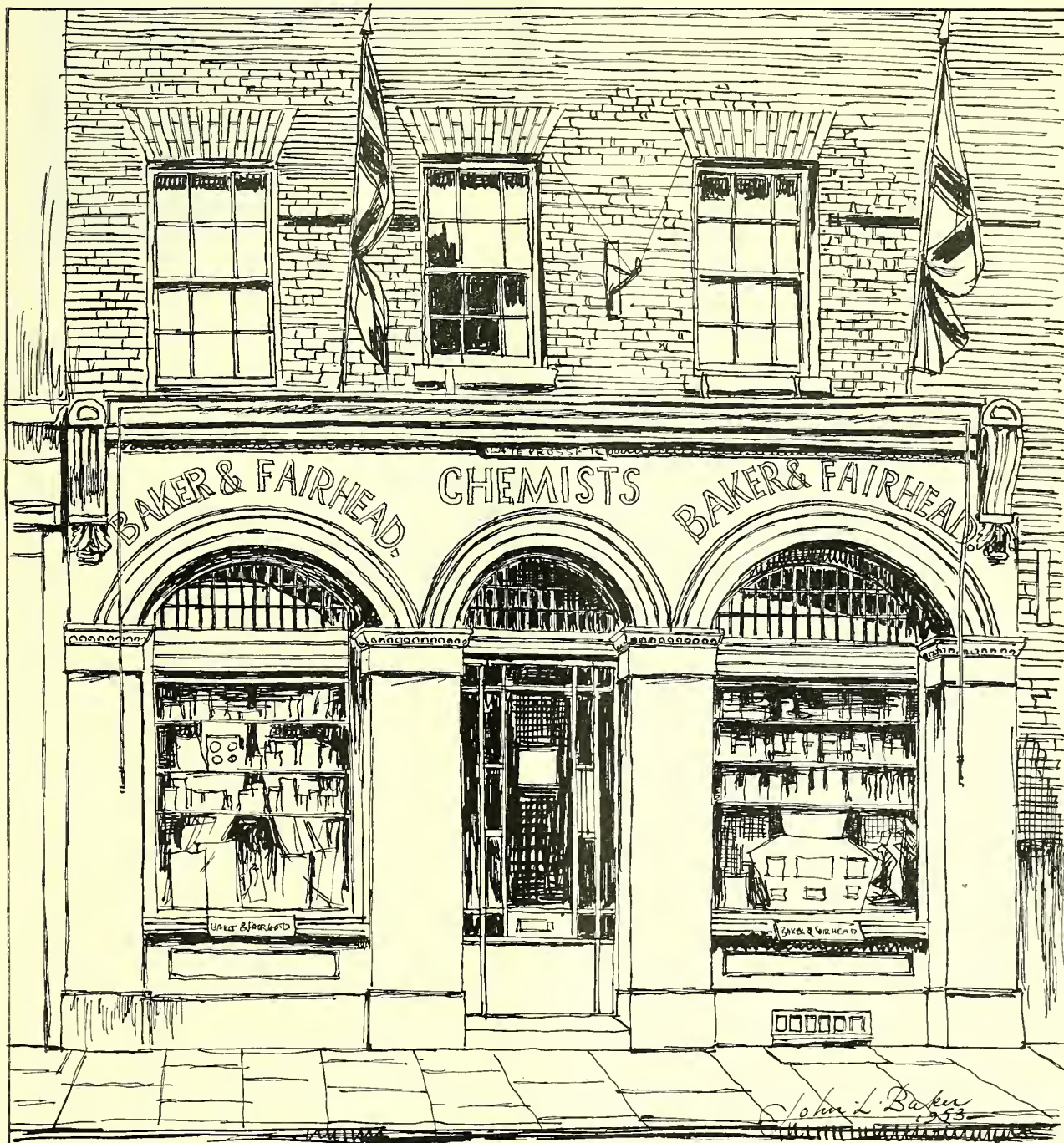
Ethers, salts of organic and inorganic acids; nitrated compounds; phenols and alcohol-phenols; halogenated, sulphonated and nitrated by-products; vitamins, their salts and by-products, etc.

GROUP 8, August 19-September 17: Cantharides; animal glands and organs, fresh, chilled or otherwise preserved, ex-

cept dried or in form of extracts; borax; apparatus, instruments and objects for medicine, surgery, dentistry and veterinary work; pharmaceutical petroleum jelly; essential oils; synthetic, aromatic products and concentrates.

GROUP 9, August 26-September 24: Natural gums, resins and balsams.

PHARMACIES OF BRITAIN—13



AN ESSEX-PORT PHARMACY

In one of the main streets of the old Essex river-port of Colchester is the long-established pharmacy of Baker & Fairhead, 36 Head Street. Formerly under the name Prosser, the business originated in 1836. The shop front is original, but internally big alterations have been made to cope with increasing work. At present the business is owned by Messrs. J. B. Baker and C. Fairhead. Its previous owner was Mr. J. B. Baker's father, the late Mr. H. E. Baker.



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A Bill of Many Items

THE Minister's recent address to the annual conference of local Medical Committees (*C. & D.*, June 20, p. 653) on the rising cost of the drug bill was comparatively well-balanced. He acknowledged that the ordering of proprietary medicines is by no means the sole cause of the high cost, and instanced frequency of prescribing, the introduction of new valuable but expensive drugs, and the rise in ingredient prices as contributing factors. He could well have mentioned the widespread ordering of larger quantities than seem reasonably necessary—a habit that has increased since the inception of the prescription charge. Few will quarrel with his comparison of the prices of standard compound codein tablets with those of proprietary brands, although his citation of asthma inhalants is less happy having regard to the personal variations and idiosyncrasies of patients' reactions to these remedies. Dr. T. Rogers (chairman, General Medical Services Committee, B.M.A.), replying, appealed for doctors to be informed of their own and area average costs of prescribing—figures that can only be obtained through the means often advocated in these columns of prompt and full pricing of prescriptions. The Minister appeared to recognise this, as he expressed a hope that within a year or less he would see up-to-date pricing. "It would then," he said, "be easier to undertake investigation of prescribing." If the Department in 1948 had put themselves in a position to deal effectively with extravagant prescribing in all forms there would have been no need, as we have previously pointed out, for the bitter campaign against prescribed proprietary medicines that is afoot.

Timely Control

THE announcement that the Poisons Board proposes to place phenylbutazone on the Poisons List and in the 1st and 4th Schedules of the Poisons Rules (*C. & D.*, June 20, p. 659) has been expected. The Pharmaceutical Society has, in fact, already taken the type of action regarding limiting its supplies by its members that was approved recently at its annual meeting and mentioned commendably in Parliament by the Minister recently (*C. & D.*, May 23, p. 516). The announcement coincides with the publication of further findings on its use. J. R. Nassam and T. Pilkington, of St. George's Hospital, London (*British Medical Journal*, 1953.I.1310-11), confirm that although the drug (which is related to amidopyrin) was "a most effective weapon in combat-

ing the symptoms of rheumatoid arthritis and acute gout," a distressing aspect was that it had to be withheld because of its toxic reactions from nearly half of the patients gaining most benefit from it. The reactions included anorexia, upper abdominal pain, dryness of the mouth, rashes, enlargement of neck glands, vertigo, blood disturbances and (in three patients out of the 102 under observation) exacerbation of rheumatoid lesions. The appearance of symptoms seemed unrelated to dose or mode of administration. The authors conclude, however, that its trial in chronic disabling conditions seems justifiable where a continual control is possible, for there are many patients who derive benefit without toxic manifestations. Scarce supplies of ACTH and cortisone may thereby be conserved. They recommend the further trial of a dose not exceeding 0.4 gm. every one to ten days. J. C. Leonard, Ipswich General Hospital (*ibid.*, 1311-13), finds from an examination of 1,526 published reports that toxic manifestations are shown in 22 per cent. of the cases treated. The most frequent complications include oedema, due to reduction of sodium and water—a complication that has often precipitated cardiac failure. Summarising recent reports on the new drug, the *Lancet* (1953, 264, 1236-37) points out that four deaths from agranulocytosis attributable to phenylbutazone have been recorded. The drug should not be used merely as an alternative analgesic for rheumatism the paper points out, and it is questionable whether sufficiently strict control of its use can be provided outside hospitals.

Overseas Trade in May

UNITED Kingdom exports in May were valued at £211.7 millions, £3.1 millions less than in April but £3.3 millions more than the monthly rate in the first quarter of 1953. Imports at £295.7 millions, were £2.5 millions more than in April; the average for the two months, £292.5 millions, comparing with £272.4 millions a month in the first quarter of 1953. Re-exports for May totalled £7.2 millions compared with £8.9 millions in April and £10.0 millions a month in the first quarter of 1953. The excess of imports, valued c.i.f., over exports and re-exports, valued f.o.b., in the first five months of 1953 averaged £60.9 millions a month, compared with £63.0 millions a month in the year 1952. According to provisional estimates the decline in total United Kingdom exports in May as compared with April was nearly all in exports to the non-sterling area.

Detailed figures show that the value of exports of the chemicals group (chemicals, drugs, dyes, colours, etc.), totalled £10.7 millions, of which drugs, medicines and medicinal preparations accounted for £2,643,507. Proprietary medicines at £548,361 was the highest for twelve months. Apart from that and antibiotics (other than penicillin) which were valued at £288,001, all the items we normally quote showed a fall on the previous month. They included quinine at £22,611; aspirin, £74,793; penicillin salts, £220,073; penicillin injections, £191,138; penicillin lozenges, ointments, etc., £43,251; insulin, £31,166; ointments and liniments, £89,973. The value of antipaludics fell sharply from £104,508 in April to £24,924 in May. Sulphonamides at £228,852, of which 30 per cent. represents the value of tablets exported, fell below the monthly average for the year.

In the toilets group exports of toilet and perfumery goods were valued at £606,797, of which cosmetics

accounted for £196,225 and dentifrices, etc., for £130,109. Toilet soaps at £205,868 and perfumed spirits at £62,885, were up to the average monthly rate for 1953. Essential oils at £51,269 was the highest value since November, 1952.

Pharmacists of the Future

IN an address to Scottish pharmacists at the annual meeting in Edinburgh recently (p. 685), Mr. C. G. Drummond makes a foreseeing survey of the pharmaceutical scene. Mr. Drummond points out that the pharmaceutical establishment of today is steadily becoming less a centre of skilled manipulation and more a centre of skilled distribution of preparations manufactured in the laboratory.

While there may be a nostalgic yearning in the profession for the days of pills and plasters it has to be admitted that in an age of industrialism it is probably inevitable that the making of even the most personal products would gravitate to the factory. Moreover, without the application of industrial techniques to the production of new chemo-therapeutic agents and antibiotics the advance in medicine, to which Mr. Drummond draws attention, would have been impossible. As to the question posed by Mr. Drummond: Will the new pharmaceutical chemists, educated—in order to understand the modern drugs they will be working with—to a higher level than their predecessors look askance at the type of business that the older pharmacist has been forced to follow? The answer probably rests with the individual. However, as Mr. Drummond suggests, the task of distributing medicines and poisons today is an onerous and responsible duty capable of dis-

charge only by a person of high qualification and experience. The pharmacist who finds himself more a distributor than a maker of medicines need not regard himself as less honourably employed than his forbears and can certainly regard himself as possessing a wider knowledge than ever before.

Chemist as Salesman

DOUGLAS HOWELL, a contributor to the *Sunday Express* (June 14) will be sadly misled if he gives as much credence as he does publicity to his trade experts who told him that chemists are losing their old salesman's touch on toilet soap and tooth-paste. The hollowness of the experts' advice is evident by their assertion that chemists are being "feather-bedded" by the National Health Service. Feather-bedded indeed!—when one organisation of dispensing chemists alone has just estimated that it is owed over £1 million for dispensing under N.H.S.! No, as chemists have often pointed out regretfully, a living cannot be made from N.H.S., and they must be dependent on counter sales. In fact, counter sales often subsidise their dispensing work. The uncertainty of N.H.S. work, in so far as its conditions may be changed by a stroke of the Minister's pen, ensures that chemists will not neglect the counter side of their business. That uncertainty has, in fact, goaded many deliberately to develop that side. Douglas Howell does not say which trade his "advisers" were expert on, but he has joined the bandwagon of their choice. The publication of such damaging nonsense may, however, serve a salutary purpose in another way, if it helps to strengthen such movements as the Chemists Federation.

Onward from Galen

A CURRENT CAUSERIE

BELOW is published a picture of the type of scrub in the Duboisia areas of Australia that is cleared for the collection of the drug with the use of a cable 400 ft. long attached



to a strong tree at one end and to a bulldozer which moves in a circle of 400 ft. at the other, as described by H. A. Berens (*C. & D.*, June 6, pp. 593-97). The top left-hand picture on p. 595 was of typical closed *Duboisia myoporoides* country.



AN early opportunity was afforded the chairman of the Imperial Chemical Industries, Ltd. (Mr. John Rogers), to

reply to that part of the Labour party's policy statement "Challenge to Britain" (*C. & D.*, June 20, p. 653), which proposed nationalising heavy chemicals. He told shareholders at the annual meeting on June 18 that although the company was not mentioned by name in the document it was probably in the mind of whoever wrote the paragraph concerned. The main reason given for the proposed change in ownership was that chemical production must expand to keep pace with the enlarged requirements of other basic industries. He agreed it must expand—that is what it had been doing through the enterprise of those in it. The company was meeting every demand from the United Kingdom, and the level of prices was lower than that in the United States or Europe. Its exports were now running at over £1 million a week. "Why should public ownership be suggested as a safeguard against shortages, which do not exist, and will never exist, if private enterprise is permitted to go ahead?" he inquired.



A HANDSOMELY produced booklet with the enticing title "Paris Awaits You" has been produced in connection with the forthcoming 15th General Assembly of the International Pharmaceutical Federation (see p. 678). Mr. Jules Romains (a member of the French Academy) contributes an article in which he promises that "Paris will make it a point of honour to prove that it is also the capital of pharmacy. You will see. It will show you vast laboratories, in modern buildings, and chemical factories as resplendent with lacquer and chrome as you can wish. And others that hide cunningly behind Louis XIV façades. And lastly, in old quarters, such and such a shop with sombre wood-

work, where still breathes the majesty of the apothecaries of other days." The booklet, which is delightfully illustrated with coloured reproductions of paintings of the Parisian scene, is written in French and English. The cover is a reproduction of an ancient map of Paris known as the "plan de Turgot" (1734-39). It shows the *Jardin des Apothicaires* then situated in the *rue de l'Arbalète*.



WORK recently completed at The Crookes Laboratories, Ltd., may help in bringing back to health prisoners of war or members of races suffering from under-nourishment or starvation. Experiments at the laboratories, under

the direction of Dr. A. E. Bender, have led to the belief that under-nourishment is not completely cured by "feeding up" and that certain organs of the body may carry on for a long time and afterwards show bio-chemical scars due to lack of proteins. The workers have tried to find out what percentage of the protein in food is useful for body building and have elaborated a new method of measuring the nutritional value of proteins which has decreased the amount of time spent on this type of important work to one-sixteenth of that spent previously. A paper on the subject is to be presented shortly to the Biochemical Society.

CORRESPONDENCE

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

ASSISTANTS

SIR,—“Hall Unashamed” (*C. & D.*, June 20, p. 667) undoubtedly flatters himself, if he seriously considers himself to merit sufficient of pharmacists' attention for us to wish “to shoot him out of hand.” CHEMIST UNASHAMED

ETHICS OF DISPENSING

SIR,—The matter that you drew attention to in your editorial, “Ethics Abandoned” (*C. & D.*, June 20, p. 665) interested me a great deal. *Family Doctor* carried caution in publicity to an extreme when it first appeared, but Big Business seems now to be winning the British Medical Association to its side.

FARNBOROUGH, KENT

G. W. NEWLING

SIR,—Allow me to congratulate you on your editorial “Ethics Abandoned”—which appeared in your previous issue. The British Medical Association professes a high ethical standard, and anything under its protecting ægis should be above suspicion. The article “Prescription,” written by a doctor under a pseudonym, about a particular firm, does not heighten our confidence in their standard of ethics.

LONDON, S.W.11

A. J. FAIRLEE

SIR,—One hundred per cent. marks for your comments entitled “Ethics Abandoned” (*C. & D.*, June 20, p. 665). All you say is fair comment on a particularly disturbing article which virtually directs readers to one organisation, and has the superficial appearance at least of being written by a doctor. If they who are the subject of the article knew about it before it was printed then the Pharmaceutical Society has a problem on its hands. Take a second look at the first paragraph only . . . “Last year over 33 million people all took their doctors' prescriptions to the same firm of chemists.” It conflicts with the statement of Lord Trent in his annual report of Boots that the number of prescriptions dispensed was slightly higher than for the previous year (33,000,000). That number is commensurate with about three to four million people, assuming that each person has five prescriptions a year, the script average per form is 1.6, and that some people take in more than one form at a time. It suggests they all took their scripts to this firm of chemists and would not have gone anywhere else. The issue of *Family Doctor* gets better as it goes on, for on the following page there is an article commending a new safety tablet container, but an editorial note states “We seldom specify in *Family Doctor* a particular firm or a particular proprietary preparation. . . .”

The damage to doctor chemists relationship cannot be repaired with an apology—it may need some articles on say, that many other pharmaceutical manufacturers and bodies, with a statement each time *all this work, research, etc., is at the doctor's elbow, for all patients in every chemist shop and hospital in the country, etc.* We want an apology to the chemists and the Society. Look out private chemists, and all those who supply us, you are being got at! This article in itself, is only one of the many things that are going on at the present time, all of which indirectly tend to “direct” EC10's away from the free choice of chemist.

EXMOUTH

H. JARVIS GRAVES

BUCKSHOT PRESCRIBING

SIR,—Reading through the works of the French poet Ronsard (born 1524, died 1585) lately, I came across the following:—

RECIPE. Recipe radicum polypodii quercini, capparis, tamaricis, lapathi ana unciam semis, fumiterræ, buglossi, borraginis, chamæpithos, chamædrios, scolopendrii, epithimi, ana manipulum semis. foliorum sennæ mundatorum drachmas tres: fiat decoctio pro dosi in colatura. Dissolve catholici unciam unam, confectionis hamech dragmas tres, syrupi de fumoterræ dragmas sex; fiat potio, detur tempore prædicto. Quod si hoc remedium non satis purgaret melancolicum, augeatur uis eius addito elleboro et lapide cyaneo præparatis ut decet.

I should be glad to see the comments of some experts in palæo-pharmacology, if that is the right name. It reminds me of a prescription for a cough mixture shown to a Dublin physician, receiving from him the caustic comment, “Buckshot!”

HOLME LACY,
HEREFORD

D. S. SPENCE, M.B.

ANTIBIOTICS AS STRATEGIC MATERIAL

SIR,—Common humanity demands that ally or enemy sick or wounded are non-combatant and entitled to all help that medical science can give. For some time past, America has refused to ship antibiotics to China. It would seem now that that country has persuaded others, including Great Britain, to strengthen the ban on sending so-called strategic materials to China, and since America considers that antibiotics are strategic materials, Britain has also banned the shipments of antibiotics to China. Britain is still one of the most democratic countries, but to continue to allow such barbarity would be the beginning of decadence. Such inhuman action cannot be justified by the plea that other countries are barbaric too, and that, therefore, Britain must follow their example. Surely it is for Great Britain to lead. There are at most 500,000 soldiers fighting in North Korea and according to newspaper reports each important engagement may result in a few dead and a few wounded. In the past year or so some 2,000,000 vials of antibiotics and more have been going from Hong Kong to China weekly, apart from those that have entered from other destinations. In other words, millions of bottles of antibiotics have been shipped to China over the past eighteen months which, if they were required for the fighting forces only, would provide every soldier with several thousand vials of antibiotics. It is, therefore, only logical to conclude that China requires the antibiotics not specifically for its wounded soldiers but for the bulk of its population. It would be inhuman to deprive fighting soldiers of antibiotics but it is diabolical to deprive the civilian population of those health-giving drugs. Is Britain to continue to be a party to such inhuman stupidity?

A. H. SNEREB

INFORMATION WANTED

The Editor would appreciate information about suppliers of the following items:

NYLEX nail brushes
FERROGAR tablets

Dr. Richardsons cough mixture
Fe-Codal tablets

THE TRANSPORT ACT, 1953

BY GRAHAM SAVILLE

ONE of the most important aspects of the new Transport Act that concerns pharmaceutical firms is the introduction of a transport levy. The amount of the levy is not inconsiderable as it will commence at a figure of 13s. 6d. for each quarter ton of unladen weight. The levy commences on January 1, 1954, and is to continue at the initial rate until the end of 1955. After that period the amount of levy will be determined by the Minister of Transport and will apply to each period of three years. If the Minister does not make an Order the sum which had to be paid for the preceding period will apply.

Point for Pharmaceutical Concerns

The major point, which should be understood by pharmaceutical concerns, is that the levy is to apply only to vehicles of unladen weight exceeding 1½ tons. Certain other classes of vehicles are also to be excluded. Special scales are laid down for tractors and, where goods vehicles are being used for drawing trailers, additional charges will be made. The levy on many firms may be quite large.

It is as well to appreciate the purpose of the levy, which is to provide a transport fund. The fund is to meet the expenses and salaries of the Road Haulage Disposal Board, to make a payment of £1 million to the British Transport Commission for the disturbance created by the transfer of its Road Haulage Executive undertaking, and also to pay for the undoubted loss on disposal of the undertaking.

Pharmaceutical firms will be aware that the main purpose of the Act is to transfer the nationalised road transport to private enterprise. Four methods have been laid down by which portions of the Road Haulage Executive undertakings can be disposed of. To control the disposal "The Road Haulage Disposal Board" has been set up.

The first method of disposal is for the British Transport Commission to invite tenders from time to time for the purchase of one or more specified motor vehicles and such other property as may be specified. The tenders are to be invited by public notice. These transport units are to be sold so that each purchaser should be able to carry goods by road for hire or reward without delay.

It has to be understood that the purchases may include certain conditions under which the purchaser may take over rights and obligations of the British Transport Commission. A point of interest is that provision is made in the Act for persons to enter or re-enter the haulage industry on a small scale. It has been acknowledged in most quarters that the efficiency of road haulage was largely bound up with the personal attention given to firms' transport and the possible re-entry of many small hauliers may be a means of increasing general transport efficiency. In order that persons of limited means may be able to engage or re-engage in transport, no transport unit may, without the consent of the Minister, include more than fifty motor vehicles or motor vehicles of aggregate unladen weight exceeding 200 tons.

Unless certain rights as to carriers' licences were granted to purchasers, their transport units would have no value. The Act lays down, therefore, that purchasers are to be granted "Special 'A' Licences" which will permit them to operate beyond the 25-mile limit imposed by the Transport Act, 1947. The licence is to be valid for a period of five years. It is also provided that, subject to the application for the special A Licence being made by the purchaser before he takes delivery of the vehicles, he will be permitted to start operations immediately. That will save him having to wait for the granting of his licence.

It should also be realised the licensing authorities have little power as to the special "A" licences. They can, however, deal with a case where vehicles will be operating from

a different base from that previously used when the vehicles were under the control of the British Transport Commission. If a licensing Authority feels that the vehicles cannot conveniently serve the same area as before, he may refuse to grant a licence.

This is probably the most important manner in which the property of the Road Haulage Executive will be disposed of, but the other methods should be understood. One of them involves the transfer (of units already offered to tender) to companies under the direct or indirect control of the British Transport Commission. Safeguards have, however, been laid down to prevent the Commission from obtaining too many vehicles and also from engaging too greatly in particular types of transport.

A further method, which was not included in the original Transport Bill, is for property, together with such rights and obligations as seem appropriate to be made over to companies under the Commission's complete control. The shares of such companies are to be held by the Commission with a view to their subsequent sale.

There will obviously be a balance of property which is not suitable for inclusion in transport units. The method of disposal of such property will be at the Minister's discretion. If the property involved does include vehicles, the purchasers of such vehicles will not have any rights to special "A" licences.

One of the principal features that enabled the Road Haulage Executive to have at least a partial monopoly of long-distance road transport was the restriction imposed by the Transport Act, 1947, which limited the majority of hauliers to a radius of twenty-five miles from their operating bases. In order that the new transport units may have time to become organised, that restriction is to continue, and the 25-mile limit will not be abolished until December 31, 1954. Some firms are operating under permits that the Commission will not be able to revoke.

Changed Nature of Road Transport

Pharmaceutical firms will realise that a completely changed nature of road transport will be available to them and, in order to obtain the widest benefit, they should watch closely the sale of units and the set-up of new transport. Allied with the transfer of units is the question of carriers' licences. It will be understood that, since the passing of the Road and Rail Traffic Act, 1933, it has been rather difficult for haulage concerns to increase their vehicle tonnage. That was largely due to the fact that they had to prove a need for any additional facilities and, should opposition be made to their application, as inevitably happened, they had to show that existing facilities could not provide the transport they were intending to give. Under the new Act, the person making the objection has to prove that the existing facilities are adequate.

A further feature of the changed licensing arrangements is that the licensing authority, when considering the suitability of existing services, must take into account all considerations, including charges. Licensing authorities have also to give prime regard to the interests of the public generally instead of to those of the transport industry.

In the initial stages that will follow the passing of the Transport Act, the changes concerning road transport will probably be of major importance. The intending changes covering transport charges must, however, not be overlooked. Undoubtedly they will take some little time to become fully operative, but their effect will be completely to change the structure of transport charges. There will be no schedules of charges but only maximum rates. The railways will have a much greater flexibility in quoting rates; restrictions like undue preference will stop.

Simplified Preparation of ISOTONIC SOLUTIONS

By E. JEAN ANDERSON, B.Sc., M.P.S.

A SIMPLIFIED method for preparing isotonic buffered solutions was described by Sprowls and Martin¹ in 1952. This may be of interest and value to pharmacists as it does not entail the use of special equipment and can be readily and rapidly carried out by the average pharmacist.

The method given in the British Pharmaceutical Codex for the preparation of such solutions, isotonic with blood, eye and nasal fluids, is undoubtedly tedious and in a busy pharmacy any simplification is always welcome.

The method suggested consists of first preparing an isotonic solution of the drug in water and then adding sufficient isotonic solvent to produce the required volume. Table 1 gives the volumes of aqueous solution made by the addition of water to 0.3 gm. or 4.5 gr. of various drugs for preparation of 30 c.c. or 1 fl. oz. of a 1 per cent. solution. When the concentration of drug prescribed is other than 1 per cent. and the quantity of solution required more or less than 1 fl. oz. the value in Table I is multiplied by percentage and by volume in fluid ounces. If more than one drug is prescribed the values calculated for each are added together.

Example: Gutt. cocain. et homatrop. B.P.C., 1 fl. oz.

Cocaine hydrochloride, 0.3 gm. in 6.3 c.c. water.

Homatropine hydrobromide, 0.3 gm. in 6.3 c.c. water.

Physiological saline, to 30 c.c. (i.e. 17.4 c.c.).

Prepared by this simplified method these drops therefore contain 0.52 per cent. of sodium chloride while the figure given in the B.P.C. is 0.57 per cent.

Diluting solutions suggested to produce isotonic solutions are physiological saline, 5.6 per cent. dextrose, Ringer's solution and 1.5 per cent. sodium nitrate. In addition four isotonic buffered diluting solutions are given in Table 2. The advantage of these is that they render solutions less irritating to delicate membranes and may also chemically stabilise some solutions. The desired pH for such solutions should be about 7 but, as stated by Sprowls and Martin¹, this pH is rarely that most suitable for stability of drugs and the formulas suggested represent a compromise between optimum conditions for stability and minimum irritation for drugs mentioned.

In the preparation of the diluting solutions the anhydrous, dried or exsiccated salts are used as figures refer to substances containing no water of crystallisation; salts should be of reagent grade purity. The use of a dispensing balance and graduated measures are adequate for weighing and measuring. The authors also suggest the addition of a preservative to these diluting solutions, and they found 0.5 per cent. chlorbutol to be the most universally compatible and least irritating. They advise storage of solutions in a refrigerator. The use of chlorbutol, however, has the disadvantage that it is difficult to avoid loss due to volatilisation, even if only gentle heat is used; and for eye drops, in particular, liquor pro guttis, B.P.C. is undoubtedly superior.

Verification of Method

To prove the validity of the article it has been necessary to verify the isotonicity and pH of the buffered diluting solutions and also to check the reaction and tonicity of numerous solutions of drugs prepared in the manner suggested, using data given in Table 1.

The isotonicity of the solutions was checked by measuring the depression of the freezing point given by the solutions, using a Beckmann thermometer. The results for the isotonic buffered diluting solutions are here given:—

SOLUTION	pH	DEPRESSION OF FREEZING POINT
Buffered diluting solution I	5.0	0.62° C.
" " " II	6.8	0.55° C.
" " " III	7.5	0.58° C.
" " " IV	8.5	0.13° C.
Physiological saline	5.5	0.53° C.

Comparing these results with that for physiological saline it will be seen that the first three solutions are slightly hypertonic. The hypertonicity is not unduly great and may be due to experimental error as, in the determination of the depression of the freezing point, no allowance has been made for the volume of disengaged ice. Diluting solution I, however, contains 2.2 per cent. of boric acid, while the figure given in the B.P.C. to produce depression of 0.52° is 1.9 per cent., so it can be expected to be slightly hypertonic. This method of determining osmotic pressure, though the most practical, appears to give variable results, as can be seen by comparing the figures obtained by authors in the numerous articles on osmosis. Solution IV is very hypotonic, however, and on checking the reference given by Hind and Goyan² with this formula it was found that the formula had been obtained from a table given for modified Palitzsch borate buffer system, adjusted to isotonicity with sodium chloride. The calculated formula from these figures was as follows:—

Boric acid	5.6 gm.
Borax	11.05 gm.
Sodium chloride	2.7 gm
Water, to	1,000 c.c.

This solution is exactly five times as strong as the one given in the article and is of pH 8.5. The depression of the freezing point was found to be 0.57°. The solution is, therefore, isotonic with physiological saline and so suitable

SOLUTION	pH	DEPRESSION OF FREEZING POINT
(a) 1 per cent. zinc sulphate in buffered diluting solution I. 2 fl. oz. ... Zinc sulphate, 9 gr. Water, to 10 c.c. Diluting solution I, to 2 fl. oz.	5.0	0.595° C.
(b) 1 per cent. atropine sulphate in buffered diluting solution II. 2 fl. oz. ... Atropine sulphate, 9 gr. Water, to 9.4 c.c. Diluting solution II, to 2 fl. oz.	6.7	0.52° C.
(c) 1 per cent. dextrose in buffered diluting solution III. 2 fl. oz. ... Dextrose, 9 gr. Water, to 10.6 c.c. Diluting solution III, to 2 fl. oz.	7.5	0.57° C.
(d) ¼ per cent. sulphanilamide in buffered diluting solution IV. 4 fl. oz. ... Sulphanilamide, 4.5 gr. Water, to 6.7 c.c. Diluting solution IV, to 4 fl. oz.	8.5	0.575° C.

for use as isotonic buffered diluting solution and should replace that given in the article. The error in this formula may have arisen from the fact that, in the article, the use of Palitzsch borate buffer pH 8.6 diluted 1 in 5 is advocated for dispensing sodium salts of sulphathiazole and sulpha-

diazine in order to reduce their excess alkalinity to a minimum but, if it is to be used as an isotonic diluting solution, this is not permissible.

The solutions of drugs tabulated on p. 693 were prepared, using data from Table 1 and diluting with the respective isotonic buffer solutions, the amended formula for buffer IV being used. The pH and depression of freezing point of these solutions is given. After storage for one month the pH of these solutions was again tested and found to be unchanged.

These figures compare favourably with those obtained for the buffered diluting solutions on their own and so confirm the values given in Table 1.

TABLE 1

Volume of aqueous solution made by the addition of water to 0.3 gm. or 4.5 gr. of various drugs for the preparation of 1 fl. oz. of a 1 per cent. isotonic solution.

1 per cent. (0.3 gm. or 4.5 gr.) of:	Volume c.c.	1 per cent. (0.3 gm. or 4.5 gr.) of:	Volume c.c.
Adrenaline hydrochloride	8.7	Phenylpropanolamine	10.3
Alum (potassium)	6.3	Physostigmine salicylate	6.3
Alypin hydrochloride	6.0	Physostigmine sulphate	4.0
Amethocaine hydrochloride	6.3	Pilocarpine hydrochloride	7.3
Amphetamine sulphate	6.7	Pilocarpine nitrate	7.0
Amylocaine hydrochloride	6.7	Piperocaine hydrochloride	6.7
Apothesine hydrochloride	6.3	Potassium chloride	28.0
Atropine sulphate	4.7	Potassium iodide	12.7
Benzyl alcohol	10.0	Potassium nitrate	20.0
Boric acid	18.3	Potassium phosphate (monobasic)	13.3
Butacaine sulphate (butyn SO ₄)	3.3	Procaine hydrochloride	8.0
Caffeine	4.3	Quinine hydrochloride	5.3
Calcium chloride (no H ₂ O)	24.3	Quinine and urea hydrochloride	8.7
Calcium gluconate	4.7	Silver nitrate	13.0
Calcium lactate	7.0	Silver protein, mild	6.3
Camphor	7.0	Silver protein, strong	1.3
Chlorbutol	6.0	Sodium acetate (no H ₂ O)	24.7
Cinchocaine hydrochloride	5.0	Sodium benzoate	15.0
Cocaine hydrochloride	6.3	Sodium bicarbonate	23.0
Cupric sulphate	5.0	Sodium biphosphate	15.0
Dextrose	5.3	Sodium borate	14.3
Diothane hydrochloride	4.3	Sodium bromide	20.7
Emetine hydrochloride	4.7	Sodium cacodylate	10.0
Ephedrine hydrochloride	9.3	Sodium carbonate, mono hydrated	22.7
Ethylhydrocupreine hydrochloride	5.0	Sodium citrate	10.7
Ethylmorphine hydrochloride	5.3	Sodium hypophosphite	18.0
Eucatropine hydrochloride	6.0	Sodium iodide	12.7
Fluorescein sodium	6.3	Sodium lactate	17.3
Glycerin	11.7	Sodium nitrate (no H ₂ O)	20.7
Hexamine	8.0	Sodium phosphate (no H ₂ O)	17.0
Homatropine hydrobromide	6.3	Sodium phosphate (2H ₂ O)	13.7
Hyoscine hydrobromide	4.3	Sodium phosphate (7H ₂ O)	9.0
Hyoscine hydrochloride	5.0	Sodium phosphate (12H ₂ O)	6.7
Iodophthalein sodium	4.0	Sodium salicylate	13.3
Lactose	3.7	Sodium sulphate	9.3
Larocaine hydrochloride	6.0	Sodium sulphite	19.3
Magnesium chloride (6 H ₂ O)	14.0	Sodium thiosulphate	10.3
Magnesium sulphate	6.7	Sucrose	3.3
Menthol	7.0	Sulphadiazine sodium	7.0
Mercuric chloride	4.0	Sulphanilamide	6.7
Mercuric cyanide (no H ₂ O)	4.7	Sulphapyridine sodium	6.7
Mercuric succinimide	4.7	Sulphathiazole sodium, sesquihydrate	6.3
Morphine hydrochloride	5.0	Syntropan	4.7
Morphine sulphate	4.0	Tannic acid	1.0
Phenacaine hydrochloride	5.3	Tutocaine hydrochloride	6.7
Phenazone	5.7	Urea	18.0
Phenobarbitone sodium	9.0	Zinc chloride	20.0
Phenol	11.7	Zinc phenolsulphonate	5.0
Phenylephrine hydrochloride	9.3	Zinc sulphate	5.0

TABLE 2

ISOTONIC BUFFERED DILUTING SOLUTIONS
Diluting Solution I, pH 5

Boric acid (H ₃ BO ₃)	22.02gm.
Distilled water, to	1000.00 c.c.

Used for salts of adrenaline, amethocaine, cinchocaine, cocaine, ethylmorphine, ethylhydrocupreine, phenacaine, piperocaine, physostigmine, procaine, syntropan and zinc.

Diluting Solution II, pH 6.8

Sodium acid phosphate (NaH ₂ PO ₄) anhydrous	4.00 gm.
Disodium phosphate (Na ₂ HPO ₄) anhydrous	4.73 gm.
Sodium chloride	4.30 gm.
Distilled water, q.s. to	1000.00 c.c.

Used for salts of atropine, ephedrine, eucatropine, homatropine, penicillin and pilocarpine.

Diluting Solution III, pH 7.4

Monobasic potassium phosphate (KH ₂ PO ₄) anhydrous	1.90 gm.
Disodium phosphate (Na ₂ HPO ₄) anhyd.	8.10 gm.
Sodium chloride	4.11 gm.
Distilled water, q.s. to	1000.00 c.c.

May be used as a neutral collyrium or as a solvent for drugs which are stable in a neutral solution.

Diluting Solution IV, pH 8.6

Boric acid (H ₃ BO ₃)	1.12 gm.
Borax (Na ₂ B ₄ O ₇ · 10 H ₂ O)	2.10 gm.
Sodium chloride	0.54 gm.
Distilled water, q.s. to	1000.00 c.c.

Used for salts of sulphonamide drugs.

Discussion

The method appears to be an ingenious one for the rapid, extemporaneous preparation of buffered isotonic solutions suitable for eye preparations in particular and can be readily carried out without the use of any analytical or special volumetric apparatus.

The use of buffered diluting solutions instead of a solution of physiological saline is to be recommended in eye and nasal preparations dispensed for out-patients, as these solutions may be in use for a considerable time and their stability is therefore an important factor.

As shown by Hind and Goyan² the effect of pH on the equilibrium concentration of the free base of many alkaloids is of vital significance as a high concentration of the free base of certain of these ophthalmic drugs is intensely irritating. On the other hand, aqueous solutions of acid salts of physiologically active bases in neutral or alkaline solutions undergo hydrolysis. As the relative concentration of the free base, and not the ionised salts, determines physiological activity the effectiveness of the preparation is reduced. The pH of the solution is therefore of great importance both for activity and stability. As the eye can tolerate a wide variation of pH when the osmotic pressure is controlled³, it is advisable to make isotonicity the first consideration and adjust the reaction to that most suitable for the stability of the drug, provided that the pH does not cause irritation. Thus the buffered isotonic diluting solutions are of great value as it has been found that they maintain pH at correct value for a considerable period of storage.

As already shown it is necessary to replace buffered diluting solution IV with the amended formula and also probably advisable to use 1.9 per cent. instead of 2.2 per cent. boric acid in buffered diluting solution I.

Summary

1. A method for the preparation of buffered isotonic solutions is investigated.
2. It is found to give satisfactory results for practical purposes.
3. An error in buffered diluting solution IV in the original paper is pointed out and a modification of buffered diluting solution I recommended.
4. The advantages of the method outlined.

I wish to thank Mr. T. D. Whittet, chief pharmacist, University College Hospital, for advice in preparing this paper.

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HOSPITAL PHARMACY FORUM

RENAISSANCE OR RELAPSE

A SENIOR consultant physician once confided to the chief pharmacist of a teaching hospital that in his opinion the most charming and intelligent women in the hospital were the pharmacists and congratulated him on the perspicacity of the selectors. Whilst it may be that some chiefs have a better appreciation than others of a combination of brains and beauty, it is highly probable that a similar bouquet might have been offered in many hospitals. It is worth reflecting that this was not always the case, for at the outbreak of war, that hospital like many other teaching hospitals, had an all-male staff. The change is not solely due to the increasing number of women entering pharmacy for the men still greatly outnumber them in the schools and at the examinations.

Approach to Hospital Work

In discussions and negotiations on the question of staffing and salaries there has been a tendency to consider only the number of vacancies and the number of applicants. This has led to the view in some quarters that although there is a shortage of hospital pharmacists (estimated at about 15 per cent.) as evidenced by the vacancies columns in the pharmaceutical Press, it is not a serious one because in spite of it the service does not break down. It has recently and correctly been pointed out that if a similar criterion to the above were accepted for other public services such as sanitation and police there would be a rolling of political and administrative heads. It is important to give attention to the way in which staffing is effected and its influence on the future development of the profession. In the nature of things a service staffed in preponderance by women must suffer great loss by "wastage." The more attractive and intelligent the women are the greater may be the wastage by marriage. Only a small minority of women entering this profession approach their work as a man usually does—in the expectation of spending the rest of his working life in it and of making a career in which he can contribute something of value to his profession and from which he can obtain a livelihood which will give him the financial security and the dignity and independence in which to bring up a family. Whatever the exceptions may be, in our society it is the general rule that the man accepts the responsibility of providing for a family and the majority of young women do not face any commensurate financial incubus. They are therefore not deterred by the same considerations as men from taking posts in hospital pharmacy. For a single person with little or no financial liability, life in hospital offers a reasonable salary, congenial conditions and the satisfaction of performing a worthwhile function in the medical team.

Let there be no doubt that the competent and conscientious work of women pharmacists, whether locum or permanent, is appreciated. We should be in a mess without them, not to mention the drabness which might blight the lives of our senior consultant physicians. Our concern, however, is with the future. Where are we to find the chief pharmacists of the future who, having come up through the service will not only maintain the standards so far achieved but will advance them by making those contributions to the profession and to the hospitals which we know to be necessary. It would be interesting to know how many British male pharmacists in good health have applied to enter the service in the past two years. It is doubtful if there has been one in the London area though there have been scores of vacancies during this period. The plain truth is that a man cannot afford to marry and set up a home with an expectation in the majority of cases of a salary no greater than £650. He is

disinclined to take the risk of a long wait for a senior post at £900 when he can start immediately at £800 or more in retail pharmacy. So it is for the powers that rule to decide whether they want in the service pharmacists of good calibre who will contribute something to its advancement or whether they are solely concerned with dispensing today's prescriptions somehow or other. In other countries the hospital pharmacist is considered to bear a higher status than their retail colleagues, and are regarded as leaders in the profession. Entry is by a competitive examination and those who have been privileged to serve their apprenticeship in hospital are proud to use the title "hospital pharmacist" even when they go into retail practice. It is untrue and unfair to suggest that the standard of practice in British hospital pharmacies is inferior to theirs: we have nothing of which to be ashamed in the standards we set ourselves. There could, however, be vast improvement under a unified health service if the right type of personnel were available: without them it must deteriorate. Perhaps it would never break down, but is it not time we thought in bigger terms than this? Is the British public to be forever content with a standard which is on the margin of failure? Indeed, the fact that there has been no breakdown is a tribute to the generosity if not the docility of many pharmacists in the smaller hospitals who put in many hours of hard solo work beyond those for which they are paid and forgo holiday leave or take it at inconvenient times because no locum is available. If these pharmacists were to "work to rule," the prescriptions which would have to be put out on EC10 forms would cost much more to the Exchequer than the provision of an adequate service in the hospitals.

ELEVENSES (Sumanter frequenter)

STATISTICIANS agree
That tea
Omni sec. hora
Reduces our powers,
Man-hours,
Making us poorer.
We make no attempt
To exempt
The slave of the mortar,
Who fills up his cup
To sup
The Camellia water.

"Thou lower shelf of stimulants that face me,
Thou latin-marked astringent on the upper,
I'd rather have, than let thy charms embrace me,
Thy caffeine and thy tannin in my cuppa!"

Thuswise he thinks
And drinks,
With spatula stirring
Tea that's not hot
From a pot
That's tanning and furring.
Badly infused,
Abused
With syrup q.s.,
Too lightly brewed,
Or stewed,
—A galenic mess.

"O, alchemy, thine heirs, steeped in infusion,
Decoction and extraction in our star,
Are forced to reach the sorrowful conclusion
We cannot make a simple cup of char!"

J.J.H.

ESSENTIALS OF TREATMENT

A C. & D. "post graduate" course for pharmacists

DEALING SPECIALLY WITH THE PHYSIOLOGICAL AND PHARMACOLOGICAL PRINCIPLES INVOLVED

BY A MEDICAL MAN

13. TREATMENT OF THYROID DISEASES

EXCLUDING conditions such as inflammation due to pathological micro-organisms, diseases of the thyroid result in a disordered metabolism with a resultant hyperthyroidism (thyrotoxicosis) or hypothyroidism (myxoedema). Pharmacists are not concerned with details of diagnosis and for purposes of clarity in this article diseases of the thyroid will be considered under these two main headings.

Hyperthyroidism

Hyperthyroidism is sometimes known as thyrotoxicosis and consists of two main varieties, (1) exophthalmic goitre, which is characterised by the protrusion of the eyeballs coupled with the general symptoms of hyperthyroidism and (2) toxic adenomatous goitre, which is not associated with protrusion of the eyeballs, but which has the general symptoms of hyperthyroidism. Sometimes the former condition is known as primary thyrotoxicosis, while the latter one is known as secondary thyrotoxicosis. In the former there is a diffuse enlargement of the gland, while in the latter there are local areas of hyperplasia.

Diagnosis is made by means of general clinical symptoms, which were discussed in the previous article (C. & D. June 13, p. 646), and include palpitations, loss of weight, increased pulse rate, restlessness and irritability, and a noticeably increased appetite. In addition to these symptoms, which can be explained in terms of excessive secretion of the thyroid gland hormone, there may be others, which have a mechanical origin. The thyroid gland is situated in the front of the neck above the summit of the sternum. If it enlarges it can expand forwards and be visible as a swelling in the neck or it can expand backwards and downwards behind the sternum i.e. retrosternally. In the latter case various pressure symptoms may result such as dysphagia—difficulty in swallowing—due to pressure on the oesophagus or dyspnoea—difficulty in breathing due to pressure on the trachea. Further aids to diagnosis are provided by laboratory methods of estimating metabolism.

It is well known that excessive thyroid secretion leads to a raised rate of metabolism in the body and this in turn will cause an increased oxygen consumption and carbon dioxide excretion. Use is made of this fact and the patient is starved for about twelve hours beforehand, so that no increase in metabolism due to digestive processes occurs at the time of the test. He is placed in a quiet room, where there are no disturbances and rests for fifteen minutes or more on the couch, before measurements are taken. He is thus in a condition of basal metabolism i.e. the metabolism which is in progress is the minimum which he requires to keep himself going at complete rest. The carbon dioxide excretion and oxygen consumption under these conditions are measured and compared with the standard for a normal individual of similar weight and surface area. The results of this test are variable, because emotions play a great part in the metabolic rate of any person and a thyrotoxic patient is one who is hyperirritable. It is therefore difficult to have the patient at complete rest, there is a certain fear of what is going to happen to him, which is very difficult to eradicate. To give sedatives would produce fallacious results in the opposite direction. A new method

of laboratory control has been made possible by the introduction of radio-active iodine. Almost all the iodine of the body is stored in the thyroid gland, which shows a special selective absorption of iodine. If an iodine solution containing radio-active iodine is given, its fate can be traced by means of a Geiger counter. In a thyrotoxic patient, a greater amount of iodine will be absorbed by the thyroid and less excreted. This fact is utilised in the test, a Geiger count being made of the radio-active iodine in the neck and thigh, producing the "neck/thigh" ratio. This can be compared with that for a normal individual.

Assuming that a diagnosis of hyperthyroidism has been made, what are the possible methods of treatment? There are three main possibilities, medicine, surgery and deep-ray therapy. Irradiation is seldom practised but is an accepted method of treatment. The main choice therefore lies between medicine and surgery and there is no doubt that until recent years surgery occupied pride of place, since no effective medicinal control existed. Probably surgery is still the procedure of choice for adenoma and cases where mechanical effects of the enlargement are in evidence.

Many cases of exophthalmic goitre have an acute onset as a result of some emotional disturbance. In such cases, it is frequently advisable to see what are the effects of sedatives upon such individuals. If the cause of the upset can be removed or overcome, many cases respond well to two or three months continuous sedation with phenobarbitone during the day, supplemented with one of the shorter acting barbiturates at bedtime. Thio-urea interferes with the combination of iodine and tyrosine and thus prevents the production of thyroxine. Thio-urea itself is never used nowadays but less toxic substances such as methyl thiouracil or propyl thiouracil are widely used. Thiouracil has toxic side effects, not the least being agranulocytosis and leucopenia, drug fever and skin reactions. Recently a new antithyroid drug methimazole has been introduced but it would seem that it is likely to be replaced by a newer derivative carbethoxy-methimazole. This compound interferes with the uptake of iodine by the thyroid gland. The newer drugs are many times more potent than thiouracil, but are not necessarily to be preferred for that reason. Carbethoxy-methimazole appears to have less toxic reactions. The vascularity of the gland is not increased and if the drug is being used as a pre-operative measure, it would seem to be preferable to thiouracil. There is no doubt, however, that Lugol's solution is still the pre-operative medication of choice. Iodine temporarily arrests the cellular hyperplasia of the gland and increases the storage of the colloid. This prevents the excessive secretion of thyroxine. The effect of iodine, however, can only be temporary and its administration ceases to have any effect after about three weeks. It is not therefore of general use and its administration is confined usually to pre-operative cases.

The dosage of methyl thiouracil depends upon the individual case but is of the order of 300—600 mgm. per day. It has been shown that, when antithyroid substances are given an enlargement of the thyroid sometimes occurs. This is explained by the fact that the pituitary gland secretes a thyrotropic hormone and the secretion of this hormone

in turn is stimulated by the amount of thyroxine in circulation. If the thyroxine is unduly diminished or if the pituitary is particularly sensitive, an excessive secretion of thyrotropic hormone occurs, with a resultant hyperplasia of the gland. A method of overcoming this disability is to give tablets of methyl thiouracil and *l*-thyroxine.

The average dose of carbethoxy methimazole is 30 mgm. per day in divided doses in the initial stages followed by a maintenance dose of 2.5 to 5 mgm. per day.

Surgical treatment consists of partial excision of the thyroid gland. It remains to be seen what the ultimate treatment will be for hyperthyroid states. There is growing evidence that medicine is likely to replace surgery in the majority of cases. One must not be deterred by the side reactions of some of the modern drugs. The incidence of the side-reactions must be considered in relation to the number of cases treated. It must also be remembered that some form of treatment is essential if the patient is to live. Surgery has its complications, not only as regards the normal risk of a surgical operation but also the estimation of the amount of gland to be removed.

Hypothyroidism

Hypothyroidism can be endemic as already described, in which the best form of treatment appears to be the prophylactic addition of iodides to table salt or water. The total iodine requirements of the body appear to be about 2 gm. in a lifetime. The value of thyroid extracts has been known since the latter part of the nineteenth century.

Due to the variable absorption of thyroxine and its high cost of production, extracts of thyroid have remained the established treatment of hypothyroidism until comparatively recently. The synthesis of the sodium salt of laevo-thyroxine and its production on a commercial scale at an economic price is an example of sound chemical research allied to clinical needs. Approximately 0.1 mgm. of laevo-thyroxine is equivalent to 1 gr. thyroid B.P. In 1952 it was found that the biological activity of triiodothyronine was about three or four times as active as laevo-thyroxine. This discovery may play some part in clinical medicine.

Future Prospects

Enough has been said in this article for it to be appreciated that the treatment of both hyperthyroidism and hypothyroidism is in a state of change. Chemical and clinical research is proceeding and the results must of necessity remain problematical. It may be however that a synthetic chemical will once again replace a natural extract, and that in hyperthyroidism the new antithyroid drugs will have the same effect on surgical treatment of the thyroid gland as did the antibiotics on the surgery of inflammatory conditions.

1. CONTHYRIN is a compound tablet of laevo thyroxine and methyl thiouracil manufactured by Glaxo Laboratories, Ltd., Greenford, Middlesex.

2. CARBETHOXY METHIMAZOLE is available under the trade name Neo-Mercazole and is manufactured by British Schering, Ltd., 229 Kensington High Street, London, W.8.

PHARMACY "ASSISTANTS"

The question whether the end of the matter was reached at the Society's annual meeting is considered by Mr. H. Long, M.P.S., Bristol.

THE ultimate authority of the annual general meeting of members, uncompromisingly rejected recently its Council's proposals for training and "listing" assistants to pharmacists.

Proverbially the aching tooth is apt to cease from troubling when specific action is imminent . . . at the dentist's threshold! But the root remains, a focus of future trouble. Detailed inquests on the A.G.M. would be unprofitable, yet one comment is permissible. So much effort appears to have been aimed at offending as few people as possible, that in net result the proposals pleased nobody at all.

Can the problem be left there, or should it be approached afresh? In the main, the aspects to be tackled are:—

1. In the lay—and regrettably in some professional—minds, there persists the delusion that the various certificate-holders, "compounders," etc., are, for all practical purposes, "as good as pharmacists." That impression must be corrected, and the only effective way to do so is to produce an authoritative statement, by pharmacists, of what constitutes competence in a dispensing assistant.
2. The only effective recognition is inevitably tied up with salary grading and its associated status.
3. The situation in which the actual value of an unqualified assistant is known only to one employer—his own—places such an assistant at a grave potential disadvantage, even though, in the majority of cases, both parties may be satisfied with the existing position.

Action on those three points only, designed to give some shape to a situation which exists, would also provide recognisable direction to replace present uncertainties of potential developments. Failure to act is an avoidance of a responsibility inherent in the practice of pharmacy. If pharmacists will only set down their own standards of competence required in assistants, they will do much to dispel the illusion referred to above, and at the same time cover objectives 2 and 3, by providing a specific grading

clause for the people concerned, with a proper place for it in the machinery of National salary agreements.

Action on these lines could be undertaken by a composite body, composed roughly as the suggested examining body in the Council's proposals, but with the addition of specific representation for the employed pharmacist. This body would be required:—

1. To study the conditions of training and standards of examination leading to the award of the various certificates now in existence (Apothecaries' Hall, Service departments, etc.).
2. To consider those conditions in the light of the requirements of retail and of hospital pharmacy.
3. To make specific recommendations for further training or periods of practical experience, in those particular fields, as considered necessary for the attainment of the required standard of competence in those fields.

So far as the retail sphere is concerned, there has been widely prevalent a strong, almost instinctive, desire to avoid any step, however small, in the direction of any form of "recognition" for those various certificates. That is understandable but for pharmacists to continue to ignore them, while refusing to take any positive action themselves, is to bury one's head in the sand. It is surely better to tackle the problem and place all of them in proper perspective by a clear declaration of the standards of competence which pharmacy sets as necessary for assistants.

There need be no question of compulsion about this action, but the existence of a specific grading in National agreements would do a great deal to clear away existing problems and would create no new ones.

It is reasonable to expect that the National Joint Industrial Council for Retail Pharmacy, or any other body with similar functions, would accept, in its agreements, the recommendations of a representative Committee in this matter of grading such assistants. With the grade clearly defined, the actual terms attaching to it would remain, as now, entirely the business of the parties to negotiations.

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

LONDON, JUNE 24: A substantial reduction in the price of CRUDE IODINE was announced by the United Kingdom importers of Chilean material; to manufacturers of PHARMACEUTICAL CHEMICALS that must have been the most interesting feature of the past week. At 20s. 6d. per kilo the new price represents a cut of 15s. 3d. from the prices ruling up to June 18. Keen competition by Japan was largely responsible for the reduction. IODIDES and IODINE preparations are expected to reflect this change shortly.

The private import of ALUMINIUM is being restored from July 1 and at the same time the price is being reduced by £6 per ton. COPPER is being returned to free dealings in August.

Trading in CRUDE DRUGS was on a limited scale with buyers reluctant to make purchases other than for immediate use. Chinese star ANISE was quoted cheaper at origin and spot values dropped by threepence per lb. ERGOT was a weak market at origin but holders here were unwilling to shade their prices further. Madras finger TURMERIC was again offered on the spot after being withdrawn last week. At 95s. per cwt. it is fully 20s. higher than it was two months ago. Other SPICES which showed firmness included African and Jamaican GINGERS and Mombasa CHILLIES. CARDAMOMS were dearer on the spot following firmer conditions at origin. CASCARA SAGRADA new-peel offers remain around 260s. per cwt., c.i.f., despite rumours of cheaper offers. BELLADONNA ROOT is being offered in some quarters at about one-half the replacement cost. In AROMATIC SEEDS, business was reported done in new-crop CORIANDER at 59s. 6d. per cwt., c.i.f., London. Indian FENNEL was inclined to be easier on the spot through more material being offered. On the other hand Morocco FENUGREEK was slightly dearer because only small spot supplies were available. Trading in MENTHOL continued on a small level and prices have weakened further. Imports of menthol into the U.K. during May amounted only to 8,266 lb. SHELLAC held firm at the previous week's quotations for spot materials. During May exports of shellac from India totalled

10,350 packages (against 15,239 in May 1952) of which the U.K. bought 1,817 (3,742) and the United States, 5,252 (6,515).

Interest was lacking in most ESSENTIAL OILS. The values of a few however are showing a tendency to creep upwards including GERANIUM, PETITGRAIN and LEMON. Priced lower were the CITRONELLAS. Imports of essential oils during May were valued at £301,952; Italy being the highest individual supplier at £92,964.

UNITED STATES DRUG AND CHEMICAL REPORT

NEW YORK, JUNE 23. FINE CHEMICALS were featured by a price cut of 74 cents per pound in Chilean IODINE to \$1.30 per lb. The break was attributed to increased competition from low-priced Japanese imports. The price change was the first since December 1951 at which time it was moved up. The domestic iodine price was reduced 54 cents, bringing it in line with the Chilean quotation. The collection of new-crop BOTANICALS has speeded up slightly although it is still considered abnormally slow due to unfavourable weather. In ESSENTIAL OILS the trading pace was slow with only routine buying taking place. SPEARMINT OIL was lowered by 15 cents to \$7.80 per lb.

Pharmaceutical Chemicals

ACETIC ACID.—B.P. Glacial is £102 for 1-ton and 115s. for 1-cwt. lots.

ADRENALINE.—Minimum rates for B.P. are from 1s. 3d. per gm. and ACID TARTRATE, B.P. 1953, from 8½d.

AMIDOPYRIN.—In 1-cwt. lots the price is 29s. per lb.

ASCORBIC ACID. — For pharmaceutical manufacturing use in the United Kingdom the rates (per kilo) are as follows:—1 kilo, £9 12s. 6d.; 10 kilo, £9 6s.; 100 kilo, £9.

ASPIRIN.—Prices are as follows:—5-cwt. lots, 4s. 6d. per lb.; 1-cwt., 4s. 6½d.; 28-lb., and under 1-cwt., 5s. 4d. Rates per 1,000 for TABLETS are as follows:—5,000, 4s. 10d.; 5,000 and over, 4s. 8d.; 10,000, 4s. 7d.; 25,000, 4s. 5d.; 100,000, 4s. 3d.; 250,000, 4s. 2½d.; 1 million, 4s. 1d.

BISMUTH SALTS. — The following are the prices (per lb.) in largest bulk packages:—

	1-cwt.	28-lb.	7-lb.
	s. d.	s. d.	s. d.
CARBONATE ..	23 5	23 8	27 5
SALICYLATE ..	22 6	22 9	26 4
SUBGALLATE ..	21 8	21 11	25 4
SUBNITRATE ..	20 11	21 2	24 6

2-cwt. lots are 3d. per lb. less than the 1-cwt. rates.

BORAX.—Prices for B.P. grade, for quantities of 1 ton and upwards are as follows:—Granular, £48 10s.; crystals, £51; powder, £52; extra-fine powder, £53 per ton. Prices of commercial range from £39 10s. to £44 per ton, as to type, and dehydrated borax is £59 10s. per ton in 140-lb. paper-lined hessian bags or £58 10s. in 1-cwt. paper bags; carriage paid in Great Britain. Surcharges for smaller quantities as for boric acid.

BORIC ACID.—Prices for B.P. grade in quantities of 1 ton and upwards are as follows:—Granular, £81; crystal, £88; powder, £85 10s.; extra-fine powder, £87 10s. per ton, in 1-cwt. bags; carriage paid in Great Britain. Surcharges for smaller quantities: Less than 1 ton but not less than 5-cwt., 1s. per cwt.; 3 cwt., 2s.; 1 cwt., 3s.

CINCHOPHEN.—1-cwt. lots are quoted at 21s. per lb.

CREAM OF TARTAR.—Rates for the home trade are now as follows:—1-ton lots, 201s. per cwt.; 10-cwt., 202s.; 5.9-cwt., 203s.; 2.4-cwt., 204s.; 1-cwt., 205s., delivered.

EMETINE SALTS.—Current rates per oz. for 32-oz. lots are: HYDROCHLORIDE, 240s.; BISMUTH IODIDE, 120s.

HYDROCYANIC ACID. — Dilute B.P.C., is from 1s. 4d. to 1s. 11d. per lb., as to quantity; Scheeles is from 1s. 8d. to 2s. 3d.

LEAD ACETATE.—B.P. crystals are 180s. per cwt., and technical, 160s.

LITHIUM SALTS. — Current minimum rates (5-cwt.) are as follows:—BENZOATE, 10s. 6d. per lb.; CARBONATE, B.P.C., 10s. 9d.; CHLORIDE (commercial), 10s. 3d. to 10s. 6d.; HYDROXIDE, 10s.; CITRATE, B.P.C., 8s. 6d.; SULPHATE, 8s.; SALICYLATE, 9s. 3d. (10-cwt.), delivered.

MAGNESIUM OXIDE, B.P. — Bulk rates are as follows:—LIGHT, 3s. 3d. per lb., and HEAVY, 5s. 4d. per lb. for minimum 1-ton lots.

MAGNESIUM TRISILICATE. — In 28-lb. packages the prices (per lb.) are now as follows:—28-lb., 4s. 9½d.; 1-cwt., 3s. 10d.; 5-cwt., 3s. 8d. Bulk rates for larger quantities are from 3s. 4d. per lb.

METOL. — In 1-cwt. lots the price is 24s. 6d. per lb.; 28-lb., 25s. 6d.; 14-lb., 27s.; 7-lb., 28s.

NIKETHAMIDE. — Prices per kilo are: 1 kilo, 121s.; 50 kilos, 105s.

PHENACETIN. — In 5-cwt. lots makers' price is now 7s. 2d. per lb., 1-cwt., 7s. 3d.

PHENYTOIN SODIUM. — Quotations for 1-cwt. lots are 27s. 6d. per lb.

PHYSOSTIGMINE.—Rates per oz. for 25-oz. lots are as follows: ALKALOID, 157s. 6d.; SALICYLATE, B.P., 118s.; SULPHATE, B.P.C., 137s. 3d.

RIBOFLAVINE. — Price (per kilo) is £43 15s. and 100-kilo lots, £43 10s.

SILVER SALTS. — NITRATE in 1,000-oz. lots is 4s. 0½d. per oz.; PROTEIN unchanged at from 36s. 3d. to 42s. 9d. and for VITELLIN from 68s. 6d. to 76s. 6d. per lb., as to quantity.

SODIUM SULPHATE.—Makers' prices are from £10 10s. to £15 10s. per ton as to quantity for B.P. crystals.

SULPHATHIAZOLE. — Price (per lb.) for 1-cwt. lots are 21s. 9d.

SULPHUR. — B.P. PRECIPITATED is £105 per ton, or £110 per ton for 1-cwt. lots.

STILBCESTROL. — Quotations are from 1s. 2d. per gm. to 1s. 7d., as to quantity.

EXCHANGE RATES ON LONDON

At the opening on Wednesday

*Alexandria ..	Piastres to £	97½-97½
Amsterdam ..	Florins to £	10.56-10.72
*Bombay ..	Shillings to rupee	1/5½-1/6½
Brussels ..	Francs to £	139-141
Copenhagen ..	Kronor to £	19.20-19.48
Dutch West Indies ..	Florins to £	5.24-5.32
*Hong Kong ..	Shillings to \$	1/2½-1/2½
*Karachi ..	Shillings to rupee	2/1½-2/1½
Lisbon	Escudos to £	79.90-81.10
*Montreal ..	Dollars to £	2.80-2.80
T.T.	Dollars to £	2.78-2.82
New York ..	Dollars to £	19.85-20.15
Oslo	Kronor to £	972-988
Paris	Francs to £	14.37-14.60
Stockholm ..	Kronor to £	2/3½-2/3½
*Singapore ..	Shillings to £	12.14-12.35
Zurich	Francs to £	

*Free market rates; remainder Bank of England.

Crude Drugs

ACONITE. — Spanish napellus is 3s. 2d. per lb., duty paid, ex wharf.

AGAR.—Kobé No. 1 on the spot is very scarce at 18s. per lb.

ALOE. — Prime Cape on the spot is 167s. 6d. per cwt.; shipment, 158s., c.i.f. Curaçao is from 335s., spot.

ANISE (STAR).—Spot material is offered at 3s. 6d. per lb. Offers for shipment are 315s. per cwt., c.i.f.

ANTIMONY. — English, 99.6 per cent., £237 10s.; 99 per cent., £255 per ton.

ASAFOETIDA.—Persian block is £15 per cwt., duty paid.

BALSAMS.—Quotations (per lb.) are:—*Canada:* Spot is 25s.; new-crop for prompt shipment, 23s. landed terms. *Copaiba:* Soluble Para, spot, 16s. *Peru,* 10s. 6d., duty paid, and 9s. 3d., c.i.f., for shipment. *Tolu* (genuine as imported) on the spot is offered at 19s. and for shipment, 18s., c.i.f.

BELLADONNA.—ROOT.—A parcel testing 0.44 per cent. is offered at 1s. 6d. per lb. on the spot, duty paid; LEAVES are from 3s. per lb., as to test.

BENZOIN.—No. 1 Sumatra block on the spot is £29 10s. per cwt.

BISMUTH. — In minimum 4-cwt. lots METAL is 17s. per lb.

BUCHU. — New-crop for shipment is 1s. 9d. per lb., c.i.f., and 2s. for spot.

CAMPHOR. — Chinese (B.P.) powder on the spot is 3s. 7½d.; ¼-oz. tablets are quoted at 5s. 9d. per lb.; 2½-lb. slabs, 4s. 9d. per lb., all duty paid.

CAPSCUMS.—Unchanged. East African on stalk are 150s. per cwt., spot, and 130s., c.i.f., off stalk, 205s., and 175s., c.i.f.

CARDAMOMS. — Aleppy greens are offered for prompt shipment at 7s. per lb., c.i.f.; new-crop, September-October shipment, 6s. 9d., c.i.f. Spot values are higher at 8s. 3d. per lb. Seeds, 13s. 6d. per lb., spot.

CASCARA SAGRADA.—Small quantities of 1951 peel offered at 325s. and 1952 peel at 315s. per cwt., duty paid. New-crop offers for June-July shipment are about 260s., c.i.f.

CASCARILLA.—Siftings are 1s. 3d. per lb., spot and quillings, 1s. 6d.

CASSIA BARK. — Whole on the spot is about 100s. per cwt., in bond, and for forward delivery, 85s., c.i.f. Broken, 75s., in bond, and 65s., c.i.f.

CHERRY BARK. — Thin natural is from 1s. 9d. per lb., duty paid, and rossed, 2s. 2d., on the spot.

CHILLIES.—Sierra Leone on the spot is 185s. per cwt.; for shipment, 140s. per cwt., c.i.f.; Mombasa are firmer at 265s., c.i.f., and 275s., spot.

CINNAMON.—Ceylon for shipment (c.i.f.), OOOO, 2s. 9d.; OOO, 2s. 8d.; OO, 2s. 7d.; O, 2s. 6d.; firsts, 1s. 11d.; seconds, 1s. 9½d.; thirds, 1s. 9½d.; quillings, 1s. 4½d.; featherings, 10½d.; chips, 6d. per lb.

CLOVES. — Zanzibar on the spot are 10s. 6d. per lb., and 9s. 1½d., c.i.f., for prompt shipment.

COCHINEAL. — Black-brilliant is 8s. 7½d. per lb. and silver grey, 7s., spot.

COCILLANA. — Bark is 1s. 9d. per lb., spot.

COLCHICUM.—Corms on spot are offering at 2s. 3d. per lb., and seeds, 6s.

COLOCYNTH.—Pulp on the spot is 1s. 9d. per lb., duty paid.

ELEMI.—Spot offers are in the region 2s. 3d. per lb.; for June-July shipment, 1s. 5d. per lb. is quoted.

ERGOT. — Portuguese for shipment is 14s. 6d. per lb., c.i.f.; spot, 15s. 9d.

GINGER.—African on the spot is 95s. per cwt.; new-crop, for shipment, 90s., c.i.f. Jamaican No. 3 is firmer at 115s. on the spot, and at 107s. 6d., c.i.f., for shipment.

MENTHOL. — Brazilian is 40s. per lb. Chinese, 42s. 6d., both duty paid. Shipment (c.i.f.): Brazilian, 38s.; Chinese, 38s.

MERCURY.—Nominal spot value is £71 per flask, ex warehouse.

MYRRH.—Aden selected sorts are quoted at £16 per cwt., on the spot. Siftings are from £7 10s. to £8 10s., and granulated, £13.

NUTMEGS. — West Indian 80's quoted at 3s. per lb. on the spot and 2s. 6d., c.i.f., for shipment.

PEPPER.—White Sarawak is 11s. 3d. per lb. on the spot and 10s. 4½d., c.i.f., for June shipment. Black Malabar is 1,175s. per cwt., on the spot, and 1,140s., c.i.f. for June shipment. Stocks of special black Sarawak are offered at 9s. 7½d. per lb., c.i.f., afloat, and 9s. 4½d., c.i.f., June shipment.

SEEDS. — **ANISE.** — Unchanged with sellers asking 137s. 6d. per cwt. for Cyprus, and 140s., duty paid, for Turkish. **CARAWAY.**—Dutch is still in poor demand at 87s. 6d. per cwt., duty paid. **CELERY.** — Quiet. No business reported in Indian at 1s. 11½d. per lb., spot. **CORIANDER.** — Market continues firm. Spot: Morocco has been sold at 60s. per cwt., duty paid; English, 70s. Shipment: New-crop, 59s. 6d., c.i.f., London, for Morocco. **CUMIN.**—Quiet. Spot, Cyprus, 140s. per cwt.; Malta, 150s.; Morocco, 145s., duty paid. Shipment: New-crop for July-August, Cyprus is 120s., and Morocco, 115s., both c.i.f. **DILL.**—Indian is steady at 80s. per cwt., spot London. **FENNEL.**—Indian is slightly easier on spot at from 175s. to 177s. 6d. per cwt. **FENUGREEK.**—Morocco is firmer on spot at 47s. 6d. per cwt., duty paid. **MUSTARD.**—English, 70s. to 90s. per cwt., according to quality.

SENEGA. — Spot supplies are from 13s. to 13s. 3d. per lb., and for prompt shipment, 11s. 9d., c.i.f.

SENNA. — *Timnevelly* LEAVES: Prime number 1 on the spot, 1s. 2½d. per lb.; Dry-crop, number 2, 9½d., and number 3, 9d. PODS, f.a.q., are about 1s. per lb.; hand-picked range from 1s. 8d. to 3s. ex wharf. *Alexandria* PODS, manufacturing, 1s. 10d. to 2s. 3d.; hand-picked, 3s. to 4s. 6d.

STROPHANTHUS. — *Kombé*, 100 per cent. is quoted at about 15s. per lb., on the spot, and *Gratus*, 25s. per lb., nominal.

TRAGACANTH.—Steady. No. 1 ribbon on the spot is £120 per cwt.; No. 2, £100; No. 3, £70.

TURMERIC.—Madras finger is 95s. on the spot and 90s., c.i.f., per cwt. Ranjapore type has sold at 92s. 6d. on the spot. June - July shipment, 93s. to 95s., c.i.f., quoted.

VALERIAN. — Indian, 165s. per cwt. Belgian, 200s., spot.

VANILLIN. — Rates (per lb.) are:—5-cwt. lots, 30s.; 1-cwt., 30s. 3d.; 56-lb., 30s. 6d.; smaller quantities, 30s. 9d.

WAXES.—**BEES'.**—Dar-es-Salaam. Spot, 430s. per cwt., June shipment, 420s., c.i.f. Sudanese and Abyssinian, 360s., c.i.f.; spot, 420s., duty paid. **CANDELLILA.**—Spot is 635s. per cwt. **CARNAUBA.** — Prime yellow, only small lots available on the spot at 1,240s. per cwt.; afloat, 1,180s., c.i.f.; shipment, 1,150s., c.i.f.; fatty grey is 1,000s. on the spot; shipment, 920s., c.i.f. **MONTAN.**—Rebeck crude on the spot is 135s. per cwt. **OURICURI.**—Spot, 0.5 per cent. impurities, 730s. per cwt. **SPERMACEIN.**—Case lots are 1s. 9d. per lb. upwards as to quantity.

WITCH HAZEL.—Leaves on the spot are about 1* 10½d. per lb.

Essential and Expressed Oils

CAJUPUT. — Spot supplies are 22s. 6d. per lb.

CALAMUS. — Imported oils are offering from 57s. 6d. per lb.

CAMPHOR, WHITE. — Chinese is 3s. per lb., on the spot.

CANANGA. — Supplies to come forward are quoted at from 60s. per lb., c.i.f. Spot is from 70s. per lb.

CARAWAY. — English-distilled is offered at 45s.; imported oils are from 20s. per lb. for spot.

CARDAMOM. — Offers are from 250s. per lb.

CASSIA. — Original drums are about 17s. per lb. for spot.

CASTOR. — In minimum 2-ton lots the price of pharmaceutical quality for prompt delivery is £186 per ton, naked, ex mill. Forward: August, £171; September-October, £158. FIRSTS are £6 per ton lower throughout.

CITRONELLA. — In original drums prices (per lb.) are:—Ceylon, spot, 3s. 3d., and shipment, 3s., c.i.f.; Java, spot, 3s. 10½d., in bond, and shipment 3s. 9d., c.i.f. Formosa, spot, 3s. 10½d. in bond and 3s. 7½d. c.i.f., June-July shipment.

CLOVE.—English-distilled bud is about 70s. per lb. for 5-cwt. lots. Madagascar leaf is 9s. 3d. per lb., duty paid, and 8s. 6d., c.i.f., for shipment; redistilled (B.P.), from 17s. 6d. per lb., spot.

FENNEL. — Spanish sweet on the spot is quoted about 10s. 6d. per lb.

GARLIC.—English is from 55s. to 60s. per oz.

GERANIUM. — Bourbon on the spot is firmer at 72s. 6d. Shipment, 70s., c.i.f.

LEMON.—Steady. B.P. (4 per cent. citral) on the spot is from 34s. to 49s. per lb. Hand-pressed Sicilian for shipment is 45s., c.i.f.

ORANGE. — Spot offers for sweet vary as to quality and quantity from 10s. to 12s. per lb.

ORIGANUM. — In original containers the price is 14s. per lb.

OTTO OF ROSE. — Turkish is from 325s. per oz. and Bulgarian, 480s., ex warehouse.

PALMAROSA. — East Indian is from 42s. 6d. per lb., on the spot, and 36s., c.i.f.

PATCHOULI. — Seychelles on the spot is 49s. per lb., and Penang, 51s. per lb. Penang for shipment, 46s., c.i.f.

PENNYROYAL. — Quotations are about 12s. 6d. per lb., duty paid.

PEPPERMINT.—Spot: *Arvensis*, Chinese, in drums is 27s. 9d. per lb. and Brazilian, 17s. Forward: Chinese, 26s. per lb., c.i.f. Japanese, 26s., c.i.f. Italian "Mitcham" type oil is 49s. to 52s. 6d. per lb., as to quality and forward from 47s. 6d., c.i.f.

PETITGRAIN. — Paraguay on the spot is from 17s. 6d. per lb., and 16s. 6d., c.i.f.

PIMENTO. — English-distilled berry is about 70s. per lb., and imported, 55s.

PINE.—*Pumilionis* on the spot is from 16s. per lb.; *sylvestris*, 9s.; Siberian (*abietis*), 10s. 6d.

ROSEMARY. — Spanish oil on the spot is about 5s. 6d. per lb., duty paid, for B.P. quality.

RUE.—Spot offers are about 15s. per lb.

SAGE. — Spanish is offered at from 8s. 6d. to 9s. 6d. per lb., spot.

SANDALWOOD.—Mysore is 70s. 6d. per lb. for 175-lb. lots.

SASSAFRAS. — Brazilian natural is offering at 6s. 3d. per lb., duty paid, and 4s. 9d., c.i.f.

SPERMINT. — Offers of B.P.C. quality are from 62s. 6d. per lb.

ZANZIBAR CLOVES

THE market review of the Zanzibar Clove Growers Association for the quarter ended March 31, states that supplies for the three months under review totalled 1,697,785 lb. (48,508 frasilas) of which 850,235 lb. (24,292 frasilas) was the produce of Zanzibar; and 847,550 lb. (24,216 frasilas) that of Pemba.

Picking of the second part of the crop (Vuli) was completed during the quarter. The total of the Mwaka and Vuli crops that has so far passed through the local market is 120,896 frasilas, compared with the Association's revised estimate of 182,000 frasilas. Although small quantities have yet to come forward it is certain that the crop has fallen considerably short of the estimate. Prospects for the coming Mwaka crop, the picking of which will begin about the middle of July, are described as "very good indeed."

Average prices month by month for fair quality cloves in the open market during the period July 1952 to March 31, 1953, compared with those for the same period in 1951-52, were as follows:—

Average per 100 lb.	1952-53 Shs. Cts.	1951-52 Shs. Cts.
July	675 03	320 60
August	721 04	357 40
September	817 98	329 92
October	829 47	333 18
November	878 62	385 01
December	729 94	386 30
January	862 76	447 59
February	868 78	533 93
March	788 45	519 18

The following table shows the destinations and quantities shipped to the four largest importers during the quarter:—

Destinations	Bales	lb.	Percentage
Singapore ...	2,160	302,400	21.51
United States ...	2,035	284,900	20.26
India ...	1,925	269,500	19.17
United Kingdom ...	1,889	264,460	18.81

Clove stem oil, totalling 26,338 lb. was shipped during the quarter of which 17,098 lb. went to the United States and 9,240 to the United Kingdom.

WORLD TRADE

U.S. Trade Act Bill.—The United States House of Representatives has approved President Eisenhower's request for a one-year extension of the Reciprocal Trade Act, which empowers him to lower tariffs in return for similar concessions by other countries.

W. German Chemical Production.—West German output of chemical products in April was generally maintained around the March rate with a daily production index of 151.4 (1938=100) against 145.1 in March and 143.3 in February. However, the smaller number of working days resulted in an average decline of 2 per cent. in output. Further decreases in prices also contributed to reducing total turnover to about 855 million D-marks from 939 millions in March.

TRADE MARKS

From the "Trade Marks Journal," June 10

For insecticides (5)
BENEX, 716,010, by W. J. Craven & Co., Ltd., Evesham.

For elastic adhesive plasters (5)
STEROPLAST, 716,879, by Adhesive Fabrics (Manchester), Ltd., Salford, 3.

For pharmaceutical, veterinary and sanitary substances, medical and surgical plasters, bandaging materials, disinfectants, germicides, fungicides and insecticides (5)
FLIT, 715,270, by Esso Standard Oil Company, New York.

For all goods (5)
FORTASEPT, 716,076, by Dr. A. Wander, S.A., Berne. THEODROX, 716,520, by Riker Laboratories, Ltd., Nottingham. CARCIMA, 716,837, by Ablin, Ltd., London, W.1.

For photographic apparatus and instruments (9)
ROYE, B709,190, by Roye, London, W.C.1.
PANOSCOPE, 715,073, by British Optical & Precision Engineers, Ltd., London, W.1.

From the "Trade Marks Journal," June 17

For industrial, scientific, photographic, agricultural and horticultural substances (1)
MERLOAM, 713,148, by Monsanto Chemical Co., St. Louis, U.S.A.

For photographic plates (1)
AXOLITH, 716,872, by Ilford, Ltd., Ilford.

For all goods (3)
NIKE, 717,202, by Thomas S. Cunningham, Ltd., Kilmarnock.

For antibiotics (5)
CANDIAMYCIN, 711,588, by Farbenfabriken Bayer, Leverkusen, Germany.

For veterinary preparations (5)
METAMIX, 712,358, by The Crown Chemical Co., Ltd., Lamberhurst.

For vitamins (5)
VITAGEX, 715,684, by Imextrade (London), Ltd., London, W.C.1.

For pharmaceutical preparations, medical and surgical plasters, bandaging material and disinfectant and sterilising substances (5)
COLLAFIL, 716,101, by B. Braun, Melsungen, Germany.

For fungicides and insecticides (5)
VITSU, 716,753, by Vitax, Ltd., Ormskirk.

For pharmaceutical preparations (5)
PHENIGEL, 711,800, by J. M. Loveridge, Ltd., Southampton. CARBOSAIN, 714,311, by Aktiebolaget Bofors, Bofors, Sweden.

ACROAGONINE, 715,677, by Ugo Cerletti, Rome, Italy. DIOBEN, 715,720, by Laboratoires Pharmaceutiques Corbière, Paris.

MINAS, 716,432, by Willows Francis Pharmaceutical Products, Ltd., London, E.8.

TUBERSIN, 717,017, by Allied Laboratories, Ltd., London, W.1.

For all goods (5)
ALGIPAX, 716,072, by John Wyeth & Brother, Ltd., London, N.16.

STODMODIN, 716,432, by The Wellcome Foundation, Ltd., London, N.W.1.

CORPENTUM, 717,009, by Allen & Hanburys, Ltd., London, E.2.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Sunday, June 28

LONDON PHARMACY RAMBLERS, walk to Tilgate and St. Leonard Forests, Sussex. Meet on 9.37 a.m. train from Victoria for Three Bridges (reserved coaches labelled "S. Robinson's party"). 9.30 a.m. train from London Bridge connects with the above at East Croydon.

Tuesday, June 30

BRITISH INSTRUMENT INDUSTRIES EXHIBITION, Olympia, London, W.14. Open until July 11.

Wednesday, July 1

HARROGATE BRANCH, PHARMACEUTICAL SOCIETY, Queen's Head Hotel, Kettleing, informal dinner, Meet Victoria Avenue, Harrogate (opposite public library) for 6.45 p.m. coach.

PRINT AND PUBLICITY

Advertising Campaigns

BENEFAX, LTD., 10 Sackville Street, London, W.1: National advertising of Benefax started in the *Daily Express* on June 26.

J. BIBBY & SONS, LTD., King Edward Street, Liverpool, 3: Advertisements for Araby toilet soap in national Press.

D. & W. GIBBS (U.K.), LTD., 7 Bridewell Place London, E.C.4: Half-page advertisements for Gibbs S.R. tooth-paste in national daily and Sunday Press.

IMEXTRADE (LONDON), LTD., Imex House, 42 Theobalds Road, London, W.C.1: Advertising of Puraphyl starts on July 1 with posters in the London Underground system.

Price Lists

DELAVALLE (G.B.), LTD., 38 Orsman Road, Kingsland Road, London, N.1: General price list, May 1953.

WADE PHARMACEUTICALS, LTD., Bishopbriggs, Glasgow: Revised price list, pp. 8.

Medical Propaganda

Manufacturers' leaflets, booklets, etc., directed to doctors but available to pharmacists.

CIBA LABORATORIES, LTD., Horsham, Sussex: "Dibistin" (6-p. folder); "Privine" (12-p. booklet); "Therapeutic Index" (pp. 66); "Ophthalmic Uses of Prisol" (4-p. leaflet).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham, Essex: "Sulphonamide Therapy" (third edition of 80-p. booklet).

ROCHE PRODUCTS, LTD., Welwyn Garden City, Herts: "Paediatrics" (16-p. booklet); Gantrisin dosage card.

ROUSSEL LABORATORIES, LTD., 847 Harrow Road, London, N.W.10: "Cortison-Roussel" (8-p. booklet).

SANDOZ PRODUCTS, LTD., 134 Wigmore Street, London, W.1: "Mesontoin and Hydantol-Sandoz" (brochure and 16-p. booklet); "Felamine" (card); "Calcibronat" (10-p. booklet); "The Treatment of Hypertensive and Peripheral vascular diseases with Hydergine" (22-p. booklet).

ELI LILLY & CO., Indianapolis 6, Indiana, U.S.A.: "Research Today," Vol. 9, No. 2. Pp. 28.

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